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Field Measurement Program

Atmospheric Dispersion Tracer Study Under Stable Conditions
and Meteorological Study

Appendices to Volume 1
Appendices B through D

October 1990



Field Measurement Program

**Atmospheric Dispersion Tracer Study Under Stable Conditions
and Meteorological Study**

**Appendices to Volume 1
Appendices B through D**

FIELD MEASUREMENT PROGRAM

Atmospheric Dispersion Tracer Study Under Stable Conditions and Meteorological Study

Volume 3 - Appendices to Volume 1 Appendices B through D

There are three other volumes:

**FIELD MEASUREMENT PROGRAM - Volume 1
Atmospheric Dispersion Tracer Study Under Stable Conditions and Meteorological Study**

**FIELD MEASUREMENT PROGRAM - Volume 2
Appendices to Volume 1 - Appendix A**

**FIELD MEASUREMENT PROGRAM - Volume 4
GASCON2 Evaluation**

October 1990

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Appendix B

The statistics for the stationary data are contained in this Appendix. Each title page number is represented as:

- Test name and test group
- Source type and associated flows
- Source location and associated dates
- Analyser name (model/manufacturer), test location and date, and number of 30 minute periods for each test type.

A header at the top of each file contains information on the date and time, location, analyser and source, station, approach, in Monitoring and Reporting and power law calculation used.

The statistics for each 30 minute period include:

- Time for 30 minute block (s)
- Maximum concentration
- Peak (99%) 30 minute value
- Plume length (m) (flow time)
- Total and conditional mean concentration (ppb)
- Total and conditional concentration (designated as variable) (ppb)
- Total and conditional standard deviation
- Total and conditional standard error
- 90% and 95% percentiles
- A probability distribution of the number of days the concentration exceeded a specified concentration level.

The variables are on the left hand of the page and the corresponding picture of the source is on the right hand. The picture shows what is shown on the left, which time is from 00:00 to 01:00 (1/2 hour) shown on the left in each picture.

Appendix B

The statistics for the stationary data are contained in this Appendix. Each title page contains information on:

- Test start and stop times
- Source type and associated times
- Source location and associated times
- Analyser status (mobile/stationary), arc location and times, and number of 30 minute periods for each analyser.

A header at the top of each file contains information on file date and time, location of analyser and source, absolute coordinates in Northing and Easting and power law calibration used.

The statistics for each 30 minute period include:

- Time for 30 minute block (s)
- Maximum concentration (ppt)
- Peak (99%) to mean ratio
- Plume intermittency (fraction)
- Total and conditional mean concentration (ppt)
- Total and conditional concentration fluctuation intensity (%)
- Total and conditional skewness
- Total and conditional kurtosis
- 50th and 99th percentiles
- A probability distribution of the fraction of time the concentration exceeded 9 selected concentration levels.

The statistics are on the left half of the page and the corresponding plume picture is on the right half. The picture shows concentration vs time, where time is from start of file. 1800 second (1/2 hour) blocks are shown in each picture.

**Field Test 2
Stationary Statistics
Kathryn Field Measurement Program**

Test Start Time: 20:11 Oct 20 88
Test Stop Time: 00:41 Oct 21 88

Source Type: Elevated

Source Location: South (20:11 to 22:12)
West (22:50 to 00:41)

Analyser A Status: Stationary/Mobile
Arc: S 1400 m (20:11 to 22:12)
W 1400 m (22:50 to 00:41)
Number of 30 minute Periods: 0

Analyser B Status: No Useful Data
Arc:
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: S 700 m (20:11 to 22:12)
W 700 m (22:50 to 00:41)
Number of 30 minute Periods: 0

Field Test 3
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 21:12 Oct 24 88
Test Stop Time: 04:45 Oct 25 88

Source Type: Elevated (21:12 to 2:04)
Ground (2:53 to 4:45)

Source Location: North (21:12 to 22:04)
West (22:39 to 3:42)
East (4:15 to 4:45)

Analyser A Status: Mobile
Arc: N 700 m (21:12 to 22:04)
W 700 m (22:39 to 3:42)
E 700 m (4:15 to 4:45)
Number of 30 minute Periods: 0

Analyser B Status: Stationary
Arc: W 1400 m
Number of 30 minute Periods: 3

Analyser C Status: Mobile
Arc: N 1400 m (21:12 to 22:04)
W 1400 m (22:39 to 3:42)
E 1400 m (4:15 to 4:45)
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T03B10)

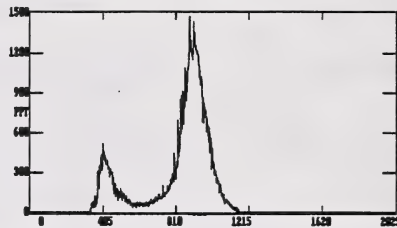
Scans : 20 to 2000
Date : 10-25-1988 Start Time : 00:14:20
Location: P8 on 1400 m W Source : W Elevated
Abs. Coordinates: (North 2293.8 m, East 1545.9 m)
Transport from 250.47 deg
Power Law Cal. : ppt = 840.2 *(voltage)^ 1.04

PERIOD # 1

Time : 0 : 14 : 32 to 0 : 44 : 31 (1800 s)
Maximum Concentration (ppt) : 1471
Peak (99 perc) to mean ratio : 8.769668
Plume intermittency : .4511111

	Total	Conditional
Mean Concentration (ppt)	148.7111	329.6552
Concentration fluc. intensity (%)	195.6366	108.5209
Skewness	2.547796	1.478186
Kurtosis	8.96451	4.06465

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1304
Percentile: 54.89 54.89 56.67 77.72 86.06 92.78 96.00 97.50 99.78
Conc. (ppt): 2 9 38 165 342 709 1021 1182 1368



STATIONARY STATISTICS (T03B12)

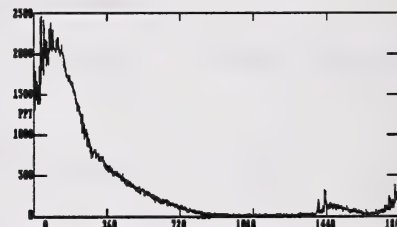
Scans : 1 to 3601
Date : 10-25-1988 Start Time : 01:00:07
Location: P5 on 1400 m W Source : W Elevated
Abs. Coordinates: (North 2377.6 m, East 1513.1 m)
Transport from 246.79 deg
Power Law Cal. : ppt = 804.2 *(voltage)^ 1.04

PERIOD # 1

Time : 1 : 0 : 0 to 1 : 29 : 59 (1800 s)
Maximum Concentration (ppt) : 2462
Peak (99 perc) to mean ratio : 5.924049
Plume intermittency : .7205555

	Total	Conditional
Mean Concentration (ppt)	377.7311	524.222
Concentration fluc. intensity (%)	160.2231	125.3126
Skewness	1.835359	1.385362
Kurtosis	5.120835	3.540697

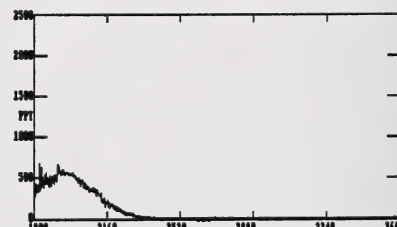
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 112 2238
Percentile: 27.94 27.94 41.78 66.28 77.50 86.61 91.56 94.50 99.61
Conc. (ppt): 2 10 50 237 516 1128 1666 1948 2277

**PERIOD # 2**

Time : 1 : 30 : 0 to 1 : 59 : 59 (1800 s)
Maximum Concentration (ppt) : 679
Peak (99 perc) to mean ratio : 6.361264
Plume intermittency : .2944444

	Total	Conditional
Mean Concentration (ppt)	93.88834	318.866
Concentration fluc. intensity (%)	188.714	58.57035
Skewness	1.664187	-.2314425
Kurtosis	4.187163	1.669819

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 597
Percentile: 70.56 70.56 72.06 76.28 79.83 84.72 93.39 98.22 99.78
Conc. (ppt): 2 7 26 96 184 354 490 558 636



**Field Test 4
Stationary Statistics
Kathryn Field Measurement Program**

Test Start Time: 18:51 Oct 27 88
Test Stop Time: 03:17 Oct 28 88

Source Type: Elevated (18:51 to 21:10,2:02 to 3:17)
Ground (21:28 to 1:12)

Source Location: West

Analyser A Status: Mobile
Arc: W 1400 m
Number of 30 minute Periods: 0

Analyser B Status: Stationary/Mobile
Arc: W 1400 m
Number of 30 minute Periods: 4

Analyser C Status: Mobile
Arc: W 700 m
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T04B04)

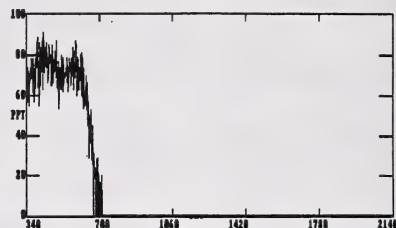
Scans : 340 to 2250
 Date : 10-27-1988 Start Time : 19:13:54
 Location: S2 on 1400 m W Source : W Elevated
 Abs. Coordinates: (North 1584.2 m, East 1605.4 m)
 Transport from 279.94 deg
 Power Law Cal. : Time = 16.85 , ppt = $983.9 * (\text{voltage})^{1.027}$
 For volt > 1.337 : ppt = $946.4 * (\text{voltage})^{1.162}$
 At time = 27.55 , ppt = $1135.9 * (\text{voltage})^{1.754}$
 For volt > .731 : ppt = $946.4 * (\text{voltage})^{1.162}$

PERIOD # 1

Time : 19 : 19 : 26 to 19 : 49 : 25 (1800 s)
 Maximum Concentration (ppt) : 91
 Peak (99 perc) to mean ratio : 6.486708
 Plume intermittency : .1994444

	Total	Conditional
Mean Concentration (ppt)	12.965	65.00557
Concentration fluc. intensity (%)	209.0147	26.60084
Skewness	1.71247	-1.546592
Kurtosis	4.087436	4.594523

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 112 84
 Percentile: 80.06 80.06 80.06 81.33 82.17 83.78 92.06 98.11 99.56
 Conc. (ppt): 2 4 10 24 37 58 73 79 87

**STATIONARY STATISTICS (T04B05A)**

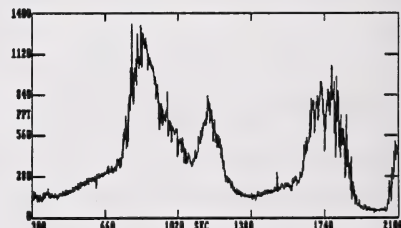
Scans : 300 to 4500
 Date : 10-27-1988 Start Time : 19:54:18
 Location: T1 on 1400 m W Source : W Elevated
 Abs. Coordinates: (North 1324.3 m, East 1533.6 m)
 Transport from 290.99 deg
 Power Law Cal. : Time = 16.85 , ppt = $983.9 * (\text{voltage})^{1.027}$
 For volt > 1.337 : ppt = $946.4 * (\text{voltage})^{1.162}$
 At time = 27.55 , ppt = $1139.9 * (\text{voltage})^{1.754}$
 For volt > .731 : ppt = $946.4 * (\text{voltage})^{1.162}$

PERIOD # 1

Time : 19 : 59 : 10 to 20 : 29 : 9 (1800 s)
 Maximum Concentration (ppt) : 1326
 Peak (99 perc) to mean ratio : 3.090744
 Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	389.2328	389.2328
Concentration fluc. intensity (%)	74.2098	74.2098
Skewness	1.004055	1.004055
Kurtosis	3.199437	3.199437

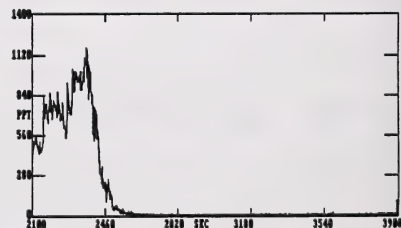
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 293 1203
 Percentile: 0.00 0.00 0.17 21.33 54.39 80.33 93.50 96.83 99.50
 Conc. (ppt): 2 9 36 153 315 646 926 1069 1234

**PERIOD # 2**

Time : 20 : 29 : 10 to 20 : 59 : 9 (1800 s)
 Maximum Concentration (ppt) : 1170
 Peak (99 perc) to mean ratio : 7.263386
 Plume intermittency : .2666667

	Total	Conditional
Mean Concentration (ppt)	146.0583	547.7188
Concentration fluc. intensity (%)	204.3803	61.6902
Skewness	1.826035	-3.024563
Kurtosis	4.781734	1.789554

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1061
 Percentile: 73.33 73.33 76.22 78.94 81.06 85.78 93.89 96.83 99.56
 Conc. (ppt): 2 8 34 141 285 577 822 947 1090



STATIONARY STATISTICS (T04B07)

Scans : 715 to 2650
Date : 10-27-1988 Start Time : 21:36:19
Location: P1 on 1400 m W Source : W Ground
Abs. Coordinates: (North 2485.7 m, East 1461.2 m)
Transport from 241.88 deg
Power Law Cal. : Time = 16.85 , ppt = $983.9 * (\text{voltage})^{1.027}$
For volt > 1.337 : ppt = $946.4 * (\text{voltage})^{1.162}$
At time = 27.55 , ppt = $1139.9 * (\text{voltage})^{1.754}$
For volt > .731 : ppt = $946.4 * (\text{voltage})^{1.162}$

PERIOD # 1

Time : 21 : 48 : 6 to 22 : 18 : 5 (1800 s)

Maximum Concentration (ppt) : 1044

Peak (99 perc) to mean ratio : 9.797849

Plume intermittency : .2316667

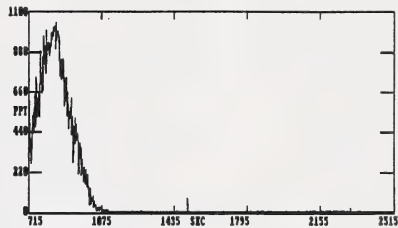
	Total	Conditional
Mean Concentration (ppt)	102.2611	441.4149
Concentration fluc. intensity (%)	244.3425	78.40871
Skewness	2.430448	.1524577
Kurtosis	7.615452	1.623041

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 293 1002

Percentile: 76.83 79.50 81.72 83.61 85.61 90.00 93.83 96.06 98.33

Conc. (ppt): 2 8 32 130 260 521 738 847 974



Field Test 5
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 19:39 Oct 28 88
Test Stop Time: 22:18 Oct 28 88

Source Type: Elevated

Source Location: South

Analyser A Status: Mobile
Arc: S 700 m
Number of 30 minute Periods: 0

Analyser B Status: Stationary/Mobile
Arc: S 1400 m
Number of 30 minute Periods: 0

Analyser C Status: Stationary
Arc: S 1400 m
Number of 30 minute Periods: 1

STATIONARY STATISTICS (T05C04)

Scans : 2500 to 4620
Date : 10-28-1988 Start Time : 19:59:42
Location: K1 on 1400 m S Source : S Elevated
Abs. Coordinates: (North 2201.9 m, East 1765.9 m)
Transport from 213.17 deg
Power Law Cal. : $ppt = 737.46 * (voltage)^{.9835}$

PERIOD # 1

Time : 20 : 41 : 13 to 21 : 11 : 12 (1800 s)

Maximum Concentration (ppt) : 970

Peak (99 perc) to mean ratio : 2.268629

Plume intermittency : .9455556

	Total	Conditional
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Mean Concentration (ppt)	383.0061	405.0594
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Concentration fluc. intensity (%)	52.71006	45.63594
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Skewness	.2398631	.4829893
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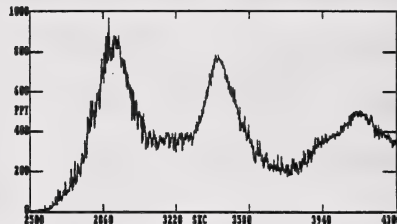
Kurtosis	2.931132	3.032703
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Percentile: 50 99 (Interpolated)

Conc. (ppt) : 364 869

Percentile: 5.44 5.44 6.44 10.94 24.22 76.67 89.89 96.94 99.94

Conc. (ppt): 2 8 31 123 245 488 688 789 906



Field Test 6
Stationary Statistics
Kathyrn Field Measurement Program

Test Start Time: 19:06 Oct 31 88
Test Stop Time: 00:10 Nov 1 88

Source Type: Elevated

Source Location: South (19:06 to 20:43)
West (21:30 to 00:10)

Analyser A Status: Mobile
Arc: S 700 m (19:06 to 20:43)
W 700 m (21:30 to 00:10)
Number of 30 minute Periods: 0

Analyser B Status: Stationary/Mobile
Arc: S 1400 m (19:06 to 20:43)
W 1400 m (21:30 to 00:10)
Number of 30 minute Periods: 2

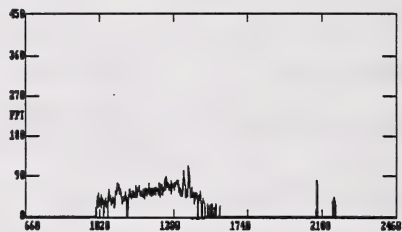
Analyser C Status: Mobile
Arc: S 1400 m (19:06 to 20:05)
W 1400 m (20:05 to 00:10)
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T06B08)

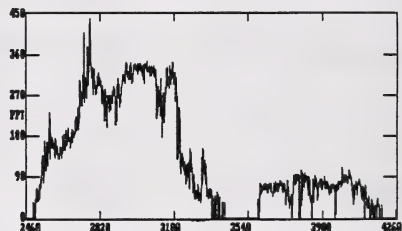
Scans : 660 to 4400
Date : 10-31-1988 Start Time : 22:27:59
Location: N4 on 1400 m W Source : W Elevated
Abs. Coordinates: (North 2882.3 m, East 1145 m)
Transport from 221.01 deg
Power Law Cal. : ppt = 687.85 *(voltage)^ 1.0236

PERIOD # 1

Time : 22 : 38 : 51 to 23 : 8 : 50 (1800 s)
Maximum Concentration (ppt) : 112
Peak (99 perc) to mean ratio : 5.493062
Plume intermittency : .3066667
Total Conditional
Mean Concentration (ppt) : 15.51056 50.5779
Concentration fluc. intensity (%) : 161.2158 32.20396
Skewness : 1.245105 .2049539
Kurtosis : 3.095632 3.152685
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 85
Percentile: 69.33 69.33 69.33 72.28 79.28 96.39 99.56 99.72 99.89
Conc. (ppt): 2 4 11 27 44 70 88 97 107

**PERIOD # 2**

Time : 23 : 8 : 51 to 23 : 38 : 50 (1800 s)
Maximum Concentration (ppt) : 440
Peak (99 perc) to mean ratio : 2.885044
Plume intermittency : .8044444
Total Conditional
Mean Concentration (ppt) : 126.1244 156.7845
Concentration fluc. intensity (%) : 91.12058 68.72929
Skewness : .6708111 .5247688
Kurtosis : 2.020735 1.704353
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 91 364
Percentile: 19.56 19.56 20.00 43.11 63.17 75.28 92.50 99.44 99.89
Conc. (ppt): 2 6 21 71 130 239 325 367 414



Field Test 7
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 18:54 Nov 07 88
Test Stop Time: 20:52 Nov 07 88

Source Type: Elevated

Source Location: West

Analyser A Status: Mobile
Arc: W 700 m
Number of 30 minute Periods: 0

Analyser B Status: Stationary/Mobile
Arc: W 1400 m
Number of 30 minute Periods: 2

Analyser C Status: Mobile
Arc: W 1400 m
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T07B03)

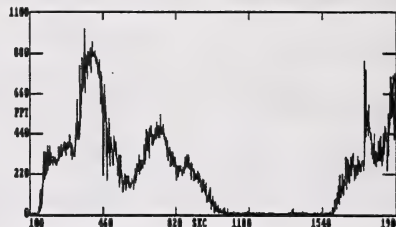
Scans : 100 to 3800
Date : 11-07-1988 Start Time : 19:07:50
Location: 08 on 1400 m W Source : W Elevated
Abs. Coordinates: (North 2563.6 m, East 1416.2 m)
Transport from 238.19 deg
Power Law Cal. : $\text{ppt} = 1307.5 * (\text{voltage})^{1.2199}$

PERIOD # 1

Time : 19 : 9 : 22 to 19 : 39 : 21 (1800 s)
Maximum Concentration (ppt) : 1010
Peak (99 perc) to mean ratio : 4.034022
Plume intermittency : .655555

	Total	Conditional
Mean Concentration (ppt)	225.4494	343.9059
Concentration fluc. intensity (%)	101.1946	57.17227
Skewness	.9922756	1.13061
Kurtosis	3.626676	4.085525

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 201 909
Percentile: 34.44 34.44 35.17 40.17 56.83 90.78 94.67 96.61 99.89
Conc. (ppt): 2 8 32 127 253 506 715 821 942

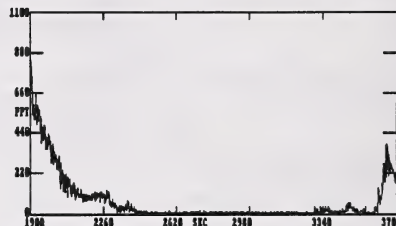


PERIOD # 2

Time : 19 : 39 : 22 to 20 : 9 : 21 (1800 s)
Maximum Concentration (ppt) : 835
Peak (99 perc) to mean ratio : 9.139896
Plume intermittency : .3327778

	Total	Conditional
Mean Concentration (ppt)	62.84555	188.8514
Concentration fluc. intensity (%)	206.8214	86.96198
Skewness	2.646956	1.302061
Kurtosis	10.12108	4.015387

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 26 574
Percentile: 66.72 66.72 68.94 83.11 89.22 96.39 99.39 99.61 99.94
Conc. (ppt): 2 8 29 111 217 426 596 682 781



Field Test 8
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 18:28 Nov 08 88
Test Stop Time: 20:52 Nov 08 88

Source Type: Elevated

Source Location: West

Analyser A Status: Mobile
Arc: W 700 m
Number of 30 minute Periods: 0

Analyser B Status: Stationary/Mobile
Arc: W 1400 m
Number of 30 minute Periods: 1

Analyser C Status: Mobile
Arc: W 1400 m
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T08B03)

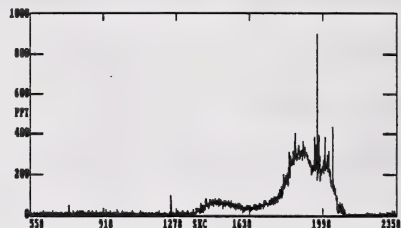
Scans : 558 to 2600
Date : 11-08-1988 Start Time : 19:01:01
Location: S0 on 1400 m W Source : W Elevated
Abs. Coordinates: (North 1352.5 m, East 1544 m)
Transport from 289.76 deg
Power Law Cal. : ppt = 1290.75 *(voltage)^ 1.174

PERIOD # 1

Time : 19 : 10 : 11 to 19 : 40 : 10 (1800 s)
Maximum Concentration (ppt) : 901
Peak (99 perc) to mean ratio : 8.935654
Plume intermittency : .3855556

	Total	Conditional
Mean Concentration (ppt)	48.37056	125.4568
Concentration fluc. intensity (%)	184.549	83.58788
Skewness	2.332572	1.285709
Kurtosis	9.932834	6.140531

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 201 432
Percentile: 61.44 61.44 63.50 85.56 91.11 99.94 99.94 99.94 99.94
Conc. (ppt): 2 8 30 117 231 456 641 735 842



Field Test 9
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:22 Nov 14 88
Test Stop Time: 21:25 Nov 14 88

Source Type: Elevated

Source Location: South

Analyser A Status: Stationary/Mobile
Arc: S 1400 m
Number of 30 minute Periods: 2

Analyser B Status: Mobile
Arc: S 1400 m
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: S 700 m
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T09A03)

Scans : 101 to 4900
Date : 11-14-1988 Start Time : 17:46:22
Location: P2 on 1400 m S Source : S Elevated
Abs. Coordinates: (North 2249.1 m, East 311.6 m)
Transport from 209.45 deg
Power Law Cal. : $\text{ppt} = 459.77 * (\text{voltage})^{\wedge} 1.2054$

PERIOD # 2

Time : 18 : 17 : 55 to 18 : 47 : 54 (1800 s)

Maximum Concentration (ppt) : 448
Peak (99 perc) to mean ratio : 11.66594
Plume intermittency : .2027778

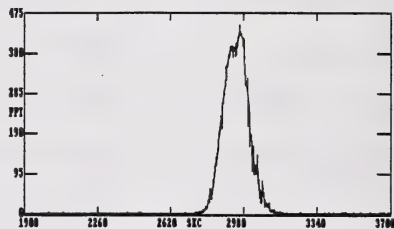
	Total	Conditional
Mean Concentration (ppt)	35.91333	177.1068
Concentration fluc. intensity (%)	275.031	85.82721
Skewness	2.907792	.3981077
Kurtosis	10.22879	1.580536

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 419

Percentile: 79.72 81.00 83.61 87.28 90.00 92.83 94.83 95.94 99.17

Conc. (ppt): 2 6 21 72 132 243 330 373 421



STATIONARY STATISTICS (T09A05)

Scans : 401 to 2200
Date : 11-14-1988 Start Time : 19:19:54
Location: P2 on 1400 m S Source : S Elevated
Abs. Coordinates: (North 2249.1 m, East 311.6 m)
Transport from 209.45 deg
Power Law Cal. : $\text{ppt} = 459.77 * (\text{voltage})^{\wedge} 1.2054$

PERIOD # 1

Time : 19 : 26 : 27 to 19 : 56 : 26 (1800 s)

Maximum Concentration (ppt) : 452
Peak (99 perc) to mean ratio : 4.482911
Plume intermittency : .4333333

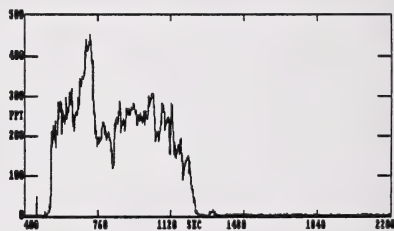
	Total	Conditional
Mean Concentration (ppt)	93.53778	215.8564
Concentration fluc. intensity (%)	132.093	43.52446
Skewness	.8371248	-.4279383
Kurtosis	2.27079	3.576318

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 419

Percentile: 56.67 57.94 59.89 61.33 63.50 82.72 96.61 97.78 99.17

Conc. (ppt): 2 6 21 72 133 245 333 376 425



Field Test 10
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:04 Nov 15 88
Test Stop Time: 21:45 Nov 15 88

Source Type: Elevated

Source Location: South

Analyser A Status: Stationary/Mobile
Arc: S 1400 m
Number of 30 minute Periods: 3

Analyser B Status: Mobile
Arc: S 700 m
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: S 1400 m
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T10A02)

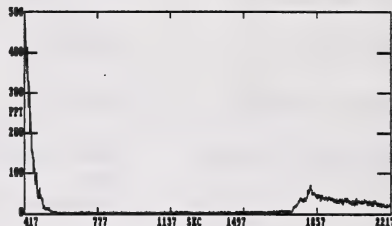
Scans : 417 to 3159
 Date : 11-10-1988 Start Time : 17:09:22
 Location: P1 on 1400 m S Source : S Elevated
 Abs. Coordinates: (North 2263.6 m, East 337.9 m)
 Transport from 208.22 deg
 Power Law Cal. : $\text{ppt} = 506.13 * (\text{voltage})^{1.1478}$

PERIOD # 1

Time : 17 : 16 : 11 to 17 : 46 : 10 (1800 s)
 Maximum Concentration (ppt) : 499
 Peak (99 perc) to mean ratio : 18.37168
 Plume intermittency : .3338889

	Total	Conditional
Mean Concentration (ppt)	16.95555	50.78203
Concentration fluc. intensity (%)	286.3738	143.9483
Skewness	6.097277	3.889549
Kurtosis	46.09064	18.33674

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 312
 Percentile: 66.61 66.83 73.28 96.72 97.78 98.78 99.28 99.72 99.89
 Conc. (ppt): 2 6 22 77 144 268 366 414 469

**STATIONARY STATISTICS (T10A03)**

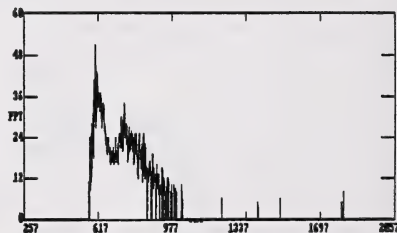
Scans : 257 to 2056
 Date : 11-10-1988 Start Time : 18:10:05
 Location: N5 on 1400 m S Source : S Elevated
 Abs. Coordinates: (North 2414.3 m, East 791.2 m)
 Transport from 188.58 deg
 Power Law Cal. : $\text{ppt} = 506.13 * (\text{voltage})^{1.1478}$

PERIOD # 1

Time : 18 : 14 : 14 to 18 : 44 : 13 (1800 s)
 Maximum Concentration (ppt) : 51
 Peak (99 perc) to mean ratio : 8.629337
 Plume intermittency : .2111111

	Total	Conditional
Mean Concentration (ppt)	4.229445	20.03421
Concentration fluc. intensity (%)	213.1047	41.21204
Skewness	2.094447	.6525427
Kurtosis	6.558677	3.454755

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 36
 Percentile: 78.89 78.89 79.39 85.50 93.44 98.72 99.72 99.83 99.94
 Conc. (ppt): 1 3 7 16 23 34 42 45 49

**STATIONARY STATISTICS (T10A06)**

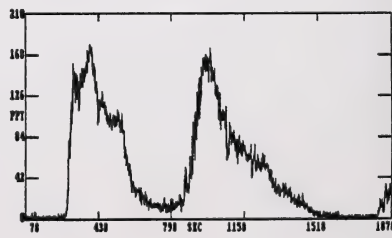
Scans : 78 to 3610
 Date : 11-10-1988 Start Time : 19:21:58
 Location: P1 on 1400 m S Source : S Elevated
 Abs. Coordinates: (North 2263.6 m, East 337.9 m)
 Transport from 208.22 deg
 Power Law Cal. : $\text{ppt} = 506.13 * (\text{voltage})^{1.1478}$

PERIOD # 1

Time : 19 : 23 : 8 to 19 : 53 : 7 (1800 s)
 Maximum Concentration (ppt) : 179
 Peak (99 perc) to mean ratio : 3.665932
 Plume intermittency : .6938889

	Total	Conditional
Mean Concentration (ppt)	46.28222	66.69976
Concentration fluc. intensity (%)	110.7483	73.8212
Skewness	.916623	.5412359
Kurtosis	2.55023	2.012598

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 27 170
 Percentile: 30.61 30.61 38.72 59.33 68.39 83.22 91.44 95.78 99.06
 Conc. (ppt): 2 5 13 38 63 107 138 153 170



Field Test 11
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:17 Nov 16 88
Test Stop Time: 01:29 Nov 17 88

Source Type: Ground (17:17 to 22:21)
Elevated (20:49 to 1:29)
Source Location: East (17:17 to 19:06)
West (20:14 to 1:29)

Analyser A Status: Stationary/Mobile
Arc: E 1400 m (17:17 to 19:06)
W 1400 m (20:14 to 1:29)
Number of 30 minute Periods: 6

Analyser B Status: Mobile
Arc: E 1400 m (17:17 to 19:06)
W 1400 m (20:14 to 1:29)
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: E 700 m (17:17 to 19:06)
W 700 m (20:14 to 1:29)
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T11A03)

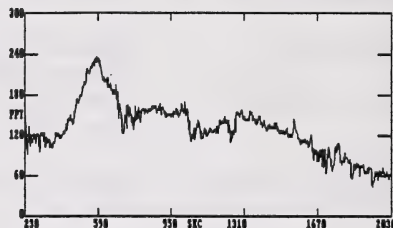
Scans : 230 to 4200
Date : 11-16-1988 Start Time : 17:42:44
Location: Q0 on 1400 m E Source : E Ground
Abs. Coordinates: (North 2957.2 m, East 983.2 m)
Transport from 144.14 deg
Power Law Cal. : $ppt = 464.72 * (voltage)^{1.1848}$

PERIOD # 1

Time : 17 : 46 : 26 to 18 : 16 : 25 (1800 s)
Maximum Concentration (ppt) : 236
Peak (99 perc) to mean ratio : 1.763834
Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	130.3383	130.3383
Concentration fluc. intensity (%)	29.64273	29.64273
Skewness	.2217223	.2217223
Kurtosis	3.129535	3.129535

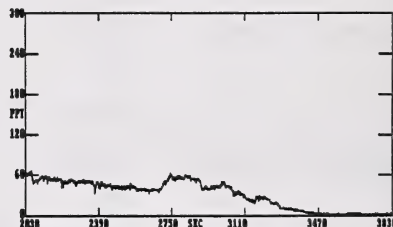
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 128 230
Percentile: 0.00 0.00 0.00 0.11 12.28 56.78 90.00 94.44 97.94
Conc. (ppt): 2 5 15 46 79 137 180 200 223

**PERIOD # 2**

Time : 18 : 16 : 26 to 18 : 46 : 25 (1800 s)
Maximum Concentration (ppt) : 65
Peak (99 perc) to mean ratio : 2.030899
Plume intermittency : .785

	Total	Conditional
Mean Concentration (ppt)	30.29333	38.59023
Concentration fluc. intensity (%)	69.63626	40.70171
Skewness	-.3537843	-.859006
Kurtosis	1.569007	2.776536

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 35 62
Percentile: 21.50 23.44 28.33 33.06 40.17 61.22 86.00 95.89 99.61
Conc. (ppt): 2 3 8 19 28 43 53 57 62

**STATIONARY STATISTICS (T11A07)**

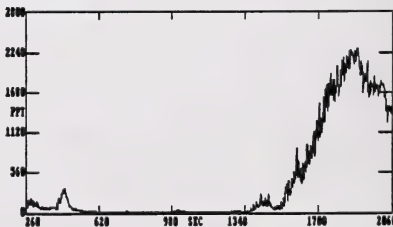
Scans : 260 to 5900
Date : 11-16-1988 Start Time : 20:46:02
Location: O2 on 1400 m W Source : W Elevated
Abs. Coordinates: (North 2710.1 m, East 1311.8 m)
Transport from 230.83 deg
Power Law Cal. : $ppt = 464.72 * (voltage)^{1.1848}$

PERIOD # 1

Time : 20 : 50 : 14 to 21 : 20 : 13 (1800 s)
Maximum Concentration (ppt) : 2297
Peak (99 perc) to mean ratio : 5.069913
Plume intermittency : .8805556

	Total	Conditional
Mean Concentration (ppt)	439.8617	499.5274
Concentration fluc. intensity (%)	160.9698	147.0439
Skewness	1.409506	1.218654
Kurtosis	3.322012	2.804285

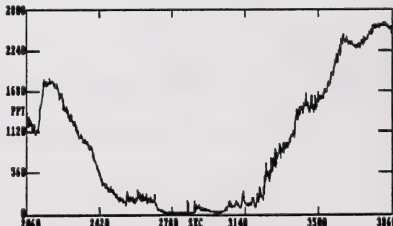
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 50 2230
Percentile: 20.89 40.00 49.78 69.78 74.17 79.67 83.83 91.78 97.44
Conc. (ppt): 2 10 48 225 489 1059 1560 1821 2126

**PERIOD # 2**

Time : 21 : 20 : 14 to 21 : 50 : 13 (1800 s)
Maximum Concentration (ppt) : 2620
Peak (99 perc) to mean ratio : 2.779568
Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	932.4805	932.4805
Concentration fluc. intensity (%)	92.20697	92.20697
Skewness	.5538255	.5538255
Kurtosis	1.932191	1.932191

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 694 2592
Percentile: 0.00 0.22 14.78 38.56 46.33 62.06 79.72 84.61 92.94
Conc. (ppt): 2 11 51 247 543 1193 1768 2069 2422

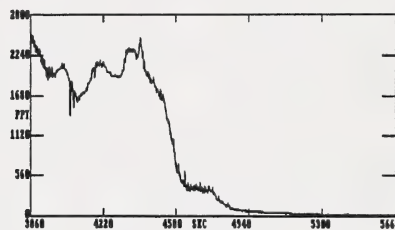


PERIOD # 3

Time : 21 : 50 : 14 to 22 : 20 : 13 (1800 s)
Maximum Concentration (ppt) : 2520
Peak (99 perc) to mean ratio : 2.913158
Plume intermittency : .8861111

	Total	Conditional
Mean Concentration (ppt)	: 841.5811	949.7467
Concentration fluc. intensity (%)	: 111.0284	98.91651
Skewness	: .4777135	.2759037
Kurtosis	: 1.395108	1.251218

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 277 2452
Percentile: 13.00 21.06 38.56 48.72 58.67 61.44 66.67 79.89 97.22
Conc. (ppt): 2 10 50 240 526 1151 1703 1992 2330



STATIONARY STATISTICS (T11A10)

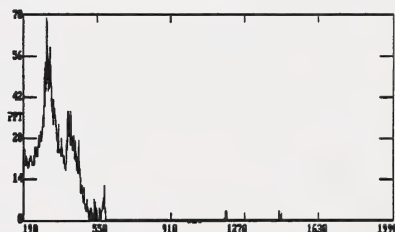
Scans : 190 to 2050
Date : 11-16-1988 Start Time : 23:23:55
Location: N2 on 1400 m W Source : W Elevated
Abs. Coordinates: (North 2920.7 m, East 1098.9 m)
Transport from 218.55 deg
Power Law Cal. : ppt = 464.72 *(voltage)^ 1.1848

PERIOD # 1

Time : 23 : 26 : 57 to 23 : 56 : 56 (1800 s)
Maximum Concentration (ppt) : 69
Peak (99 perc) to mean ratio : 10.87112
Plume intermittency : .21

	Total	Conditional
Mean Concentration (ppt)	: 4.646111	22.12434
Concentration fluc. intensity (%)	: 237.9183	63.14328
Skewness	: 2.598161	.5565902
Kurtosis	: 9.638057	3.319181

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 51
Percentile: 79.00 81.44 83.83 86.89 95.22 98.44 99.56 99.78 99.89
Conc. (ppt): 2 4 8 19 30 45 56 61 66



Field Test 12
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:45 Nov 18 88
Test Stop Time: 01:57 Nov 19 88

Source Type: Elevated
Source Location: South

Analyser A Status: Stationary/Mobile
Arc: S 1400 m
Number of 30 minute Periods: 7

Analyser B Status: Mobile
Arc: S 1400 m
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: S 700 m
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T12A06)

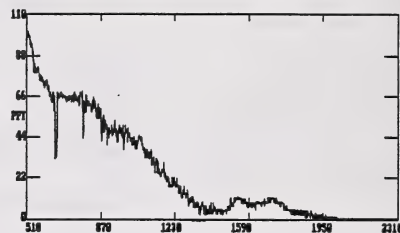
Scans : 510 to 2400
Date : 11-18-1988 Start Time : 19:50:37
Location: N7 on 1400 m S Source : S Elevated
Abs. Coordinates: (North 2404.1 m, East 732 m)
Transport from 191.03 deg
Power Law Cal. : $ppt = 475.39 * (voltage)^{1.2042}$

PERIOD # 1

Time : 19 : 58 : 59 to 20 : 28 : 58 (1800 s)
Maximum Concentration (ppt) : 101
Peak (99 perc) to mean ratio : 3.882838
Plume intermittency : .8188889

	Total	Conditional
Mean Concentration (ppt)	23.88056	29.16214
Concentration fluc. intensity (%)	111.425	91.41023
Skewness	.9125566	.6651713
Kurtosis	2.497113	2.120689

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 9 93
Percentile: 22.00 29.06 53.78 63.83 70.39 86.11 97.39 98.50 99.39
Conc. (ppt): 2 4 10 25 40 64 80 88 96



STATIONARY STATISTICS (T12A07)

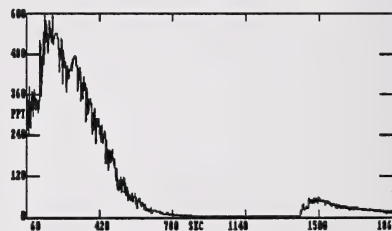
Scans : 60 to 2400
Date : 11-18-1988 Start Time : 20:37:21
Location: N0 on 1400 m S Source : S Elevated
Abs. Coordinates: (North 2384.1 m, East 644.3 m)
Transport from 194.72 deg
Power Law Cal. : $ppt = 475.39 * (voltage)^{1.2042}$

PERIOD # 1

Time : 20 : 38 : 13 to 21 : 8 : 12 (1800 s)
Maximum Concentration (ppt) : 601
Peak (99 perc) to mean ratio : 5.337781
Plume intermittency : .6816667

	Total	Conditional
Mean Concentration (ppt)	104.5117	153.3179
Concentration fluc. intensity (%)	157.2566	116.936
Skewness	1.532412	.9875177
Kurtosis	3.8741	2.43419

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 20 558
Percentile: 31.83 35.56 54.44 73.50 76.72 83.61 91.78 95.50 99.33
Conc. (ppt): 2 7 25 88 167 317 436 496 564



STATIONARY STATISTICS (T12A08)

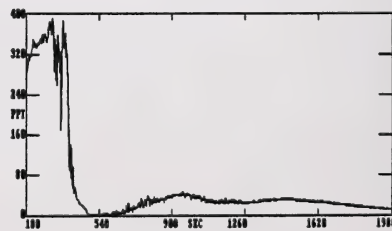
Scans : 180 to 2400
Date : 11-18-1988 Start Time : 21:22:41
Location: M8 on 1400 m S Source : S Elevated
Abs. Coordinates: (North 2430 m, East 1000.4 m)
Transport from 180.02 deg
Power Law Cal. : $ppt = 475.39 * (voltage)^{1.2042}$

PERIOD # 1

Time : 21 : 25 : 33 to 21 : 55 : 32 (1800 s)
Maximum Concentration (ppt) : 393
Peak (99 perc) to mean ratio : 6.34117
Plume intermittency : .9333333

	Total	Conditional
Mean Concentration (ppt)	59.38833	63.63036
Concentration fluc. intensity (%)	169.5269	161.7305
Skewness	2.388095	2.285872
Kurtosis	6.957056	6.433537

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 37 377
Percentile: 6.67 10.61 28.50 87.33 88.11 88.72 89.89 92.06 98.61
Conc. (ppt): 2 6 20 65 119 216 292 329 370

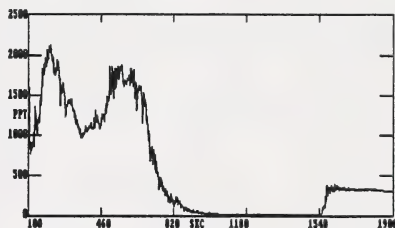


STATIONARY STATISTICS (T12A11)

Scans : 100 to 2900
Date : 11-18-1988 Start Time : 23:05:35
Location: N1 on 1400 m S Source : S Elevated
Abs. Coordinates: (North 2427.1 m, East 910.4 m)
Transport from 183.67 deg
Power Law Cal. : ppt = 475.39 *(voltage)^ 1.2042

PERIOD # 1

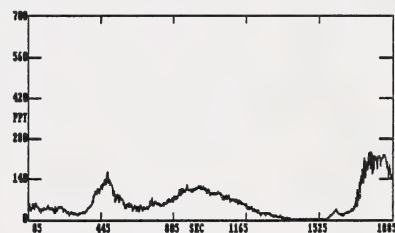
Time : 23 : 7 : 7 to 23 : 37 : 6 (1800 s)
Maximum Concentration (ppt) : 2129
Peak (99 perc) to mean ratio : 3.491135
Plume intermittency : .7872222
Total Conditional
Mean Concentration (ppt) : 576.0894 731.8003
Concentration fluc. intensity (%) : 113.8241 89.84106
Skewness : .8010266 .4676071
Kurtosis : 2.102678 1.70112
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 297 2011
Percentile: 25.44 29.83 36.28 42.78 64.00 68.22 84.00 90.89 98.67
Conc. (ppt): 2 10 46 214 460 989 1451 1692 1972

**STATIONARY STATISTICS (T12A12)**

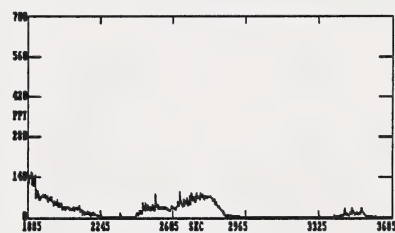
Scans : 85 to 6750
Date : 11-18-1988 Start Time : 23:58:20
Location: M7 on 1400 m S Source : S Elevated
Abs. Coordinates: (North 2429.7 m, East 1030.4 m)
Transport from 181.24 deg
Power Law Cal. : ppt = 475.39 *(voltage)^ 1.2042

PERIOD # 1

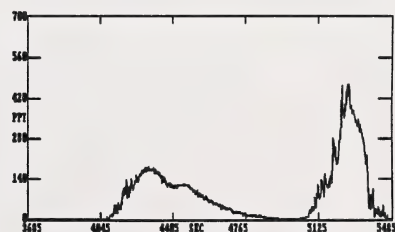
Time : 23 : 59 : 37 to 0 : 29 : 36 (1800 s)
Maximum Concentration (ppt) : 233
Peak (99 perc) to mean ratio : 3.651452
Plume intermittency : .8866667
Total Conditional
Mean Concentration (ppt) : 59.86611 67.51817
Concentration fluc. intensity (%) : 88.66698 76.40347
Skewness : 1.293857 1.341348
Kurtosis : 4.358061 4.350023
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 45 219
Percentile: 11.33 12.50 17.61 50.83 71.44 91.06 94.00 95.61 99.33
Conc. (ppt): 2 5 15 45 78 135 177 198 221

**PERIOD # 2**

Time : 0 : 29 : 37 to 0 : 59 : 36 (1800 s)
Maximum Concentration (ppt) : 158
Peak (99 perc) to mean ratio : 6.269733
Plume intermittency : .6305556
Total Conditional
Mean Concentration (ppt) : 21.46 34.03348
Concentration fluc. intensity (%) : 133.0318 86.39899
Skewness : 1.705082 1.341426
Kurtosis : 6.276066 5.25278
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 8 135
Percentile: 37.67 45.61 55.94 75.50 86.44 97.89 98.44 99.06 99.94
Conc. (ppt): 2 5 13 35 57 95 123 136 150

**PERIOD # 3**

Time : 0 : 59 : 37 to 1 : 29 : 36 (1800 s)
Maximum Concentration (ppt) : 469
Peak (99 perc) to mean ratio : 5.795578
Plume intermittency : .6894444
Total Conditional
Mean Concentration (ppt) : 73.315 106.3392
Concentration fluc. intensity (%) : 134.3749 96.66167
Skewness : 1.813775 1.482622
Kurtosis : 6.122967 4.84211
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 34 425
Percentile: 31.06 35.61 45.78 63.22 82.39 92.83 96.11 98.28 99.33
Conc. (ppt): 2 6 22 74 137 254 345 390 441



Field Test 13
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:33 Nov 20 88
Test Stop Time: 00:43 Nov 21 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 6

Analyser B Status: Mobile
Arc: C 700 m
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: C 700 m
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T13A05)

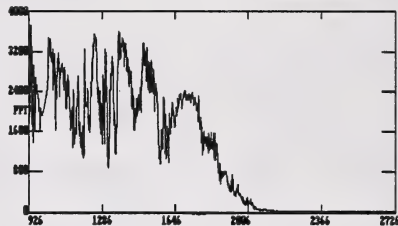
Scans : 926 to 3240
Date : 11-20-1988 Start Time : 18:25:19
Location: F5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1783.6 m, East 1664.9 m)
Transport from 268.41 deg
Power Law Cal. : $ppt = 450.7 * (voltage)^{1.194}$

PERIOD # 1

Time : 18 : 40 : 37 to 19 : 10 : 36 (1800 s)
Maximum Concentration (ppt) : 3716
Peak (99 perc) to mean ratio : 2.954648
Plume intermittency : .9966667

	Total	Conditional
Mean Concentration (ppt)	1200.049	1204.063
Concentration fluc. intensity (%)	97.58235	97.24834
Skewness	.334287	.32881
Kurtosis	1.619314	1.617042

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 973 3546
Percentile: 7.61 32.83 37.83 42.28 46.50 59.06 83.17 90.94 98.28
Conc. (ppt): 2 12 61 316 718 1633 2464 2904 3423



STATIONARY STATISTICS (T13A09)

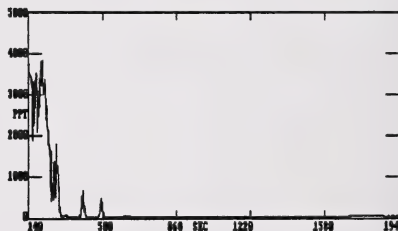
Scans : 140 to 2381
Date : 11-20-1988 Start Time : 19:58:16
Location: F5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1783.6 m, East 1664.9 m)
Transport from 268.41 deg
Power Law Cal. : $ppt = 450.7 * (voltage)^{1.194}$

PERIOD # 1

Time : 20 : 0 : 28 to 20 : 30 : 27 (1800 s)
Maximum Concentration (ppt) : 3854
Peak (99 perc) to mean ratio : 16.97857
Plume intermittency : .3338889

	Total	Conditional
Mean Concentration (ppt)	203.4695	609.3927
Concentration fluc. intensity (%)	346.6868	182.9469
Skewness	3.767607	1.729854
Kurtosis	16.08209	4.385403

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 973 3455
Percentile: 66.61 72.44 88.50 91.17 92.72 94.44 95.67 96.89 99.44
Conc. (ppt): 2 12 62 324 739 1688 2550 3008 3549



STATIONARY STATISTICS (T13A14)

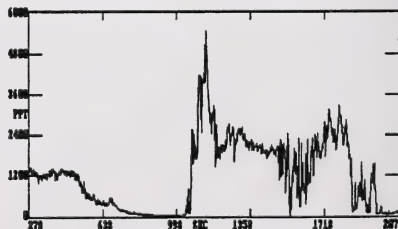
Scans : 278 to 4280
Date : 11-20-1988 Start Time : 22:02:44
Location: B3 on 700 m C Source : C Ground
Abs. Coordinates: (North 2423.4 m, East 1200.7 m)
Transport from 199.66 deg
Power Law Cal. : $ppt = 450.7 * (voltage)^{1.194}$

PERIOD # 1

Time : 22 : 7 : 14 to 22 : 37 : 13 (1800 s)
Maximum Concentration (ppt) : 5465
Peak (99 perc) to mean ratio : 3.418086
Plume intermittency : .9472222

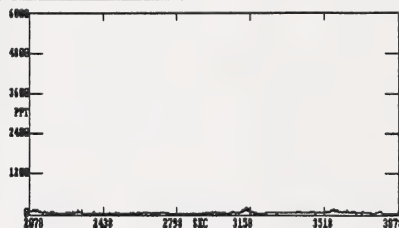
	Total	Conditional
Mean Concentration (ppt)	1205.446	1272.612
Concentration fluc. intensity (%)	85.74235	80.22448
Skewness	.6885316	.6482749
Kurtosis	3.162225	3.201844

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 1156 4120
Percentile: 5.28 8.22 18.06 33.33 44.33 86.56 97.44 99.28 99.83
Conc. (ppt): 2 13 74 413 977 2311 3554 4221 5014



PERIOD # 2

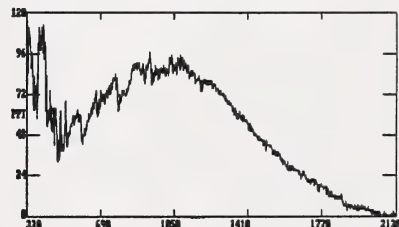
Time : 22 : 37 : 14 to 23 : 7 : 13 (1800 s)
 Maximum Concentration (ppt) : 176
 Peak (99 perc) to mean ratio : 4.533109
 Plume intermittency : .9161111
 Total Conditional
 Mean Concentration (ppt) : 30.63389 33.43905
 Concentration fluc. intensity (%) : 95.51303 86.7096
 Skewness : 1.609649 1.622419
 Kurtosis : 6.208704 6.229757
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 24 139
 Percentile: 8.39 13.94 36.00 68.67 87.56 97.11 98.89 99.44 99.78
 Conc. (ppt): 2 5 13 37 63 105 136 151 167

**STATIONARY STATISTICS (T13A15B)**

Scans : 330 to 2130
 Date : 11-20-1988 Start Time : 23:17:58
 Location: V9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2463.2 m, East 927.2 m)
 Transport from 176.89 deg
 Power Law Cal. : ppt = 450.7 *(voltage)^ 1.194

PERIOD # 1

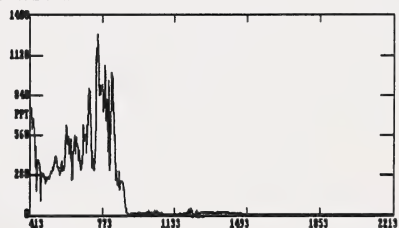
Time : 23 : 23 : 20 to 23 : 53 : 19 (1800 s)
 Maximum Concentration (ppt) : 113
 Peak (99 perc) to mean ratio : 2.027486
 Plume intermittency : .9577778
 Total Conditional
 Mean Concentration (ppt) : 52.16833 54.4681
 Concentration fluc. intensity (%) : 59.18282 54.15253
 Skewness : -.2976869 -.3469454
 Kurtosis : 1.814137 1.914199
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 57 106
 Percentile: 5.33 10.33 14.94 27.67 37.06 63.67 93.00 97.72 99.33
 Conc. (ppt): 2 4 11 27 44 70 89 98 108

**STATIONARY STATISTICS (T13A16A)**

Scans : 413 to 2400
 Date : 11-21-1988 Start Time : 00:01:30
 Location: V9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2463.2 m, East 927.2 m)
 Transport from 176.89 deg
 Power Law Cal. : ppt = 450.7 *(voltage)^ 1.194

PERIOD # 1

Time : 0 : 8 : 15 to 0 : 38 : 14 (1800 s)
 Maximum Concentration (ppt) : 1271
 Peak (99 perc) to mean ratio : 7.692144
 Plume intermittency : .5288889
 Total Conditional
 Mean Concentration (ppt) : 128.7106 243.3603
 Concentration fluc. intensity (%) : 187.7357 118.0229
 Skewness : 2.017169 1.090134
 Kurtosis : 6.510957 3.40927
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 2 990
 Percentile: 49.39 61.06 73.22 73.94 80.61 93.78 98.06 99.33 99.72
 Conc. (ppt): 2 9 36 149 304 622 889 1026 1183



Field Test 14
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 18:25 Nov 24 88
Test Stop Time: 19:23 Nov 24 88

Source Type: Elevated

Source Location: South

Analyser A Status: No useful data
Arc:
Number of 30 minute Periods: 0

Analyser B Status: Mobile
Arc: S 1400 m
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: S 700 m
Number of 30 minute Periods: 0

Field Test 15
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:15 Nov 26 88
Test Stop Time: 23:35 Nov 26 88

Source Type: Ground (17:15 to 20:33)
Elevated (21:20 to 23:35)

Source Location: Center (17:15 to 20:33)
West (21:20 to 23:35)

Analyser A Status: Stationary/Mobile
Arc: C 700 m (17:15 to 20:33)
W 1400 m (21:20 to 23:35)
Number of 30 minute Periods: 3

Analyser B Status: Mobile
Arc: C 700 m (17:15 to 20:33)
W 1400 m (21:20 to 23:35)
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: C 700 m (17:15 to 20:33)
W 700 m (21:20 to 23:35)
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T15A04)

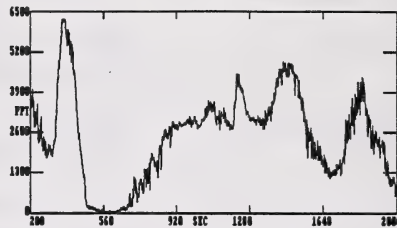
Scans : 200 to 2380
Date : 11-26-1988 Start Time : 18:11:30
Location: E2 on 700 m C Source : C Ground
Abs. Coordinates: (North 2036.2 m, East 1610.2 m)
Transport from 247.13 deg
Power Law Cal. : $ppt = 439.3 * (voltage)^{1.205}$

PERIOD # 1

Time : 18 : 14 : 42 to 18 : 44 : 41 (1800 s)

Maximum Concentration (ppt) : 6252
Peak (99 perc) to mean ratio : 2.406859
Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	2471.342	2471.342
Concentration fluc. intensity (%)	57.48555	57.48555
Skewness	4.938509E-02	4.938509E-02
Kurtosis	2.701177	2.701177
Percentile:	50	99 (Interpolated)
Conc. (ppt) :	2721	5948
Percentile:	0.06	2.83 7.44 12.94 18.11 46.83 87.17 95.67 98.28
Conc. (ppt):	2	14 79 454 1088 2609 4038 4810 5729



STATIONARY STATISTICS (T15A06)

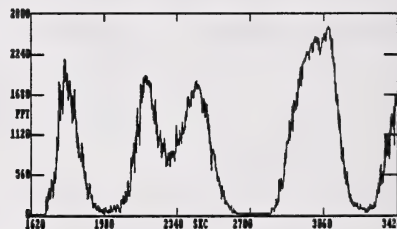
Scans : 1620 to 4700
Date : 11-26-1988 Start Time : 19:29:16
Location: D7 on 700 m C Source : C Ground
Abs. Coordinates: (North 2125.3 m, East 1564.9 m)
Transport from 238.95 deg
Power Law Cal. : $ppt = 439.3 * (voltage)^{1.205}$

PERIOD # 1

Time : 19 : 56 : 8 to 20 : 26 : 7 (1800 s)

Maximum Concentration (ppt) : 2618
Peak (99 perc) to mean ratio : 3.072061
Plume intermittency : .9627778

	Total	Conditional
Mean Concentration (ppt)	834.8689	867.146
Concentration fluc. intensity (%)	92.55568	88.74382
Skewness	.600128	.5545519
Kurtosis	2.117445	2.078731
Percentile:	50	99 (Interpolated)
Conc. (ppt) :	633	2565
Percentile:	3.78	7.50 16.33 36.22 47.11 67.72 84.72 91.00 96.28
Conc. (ppt):	2	11 51 247 542 1192 1766 2067 2420



STATIONARY STATISTICS (T15A10)

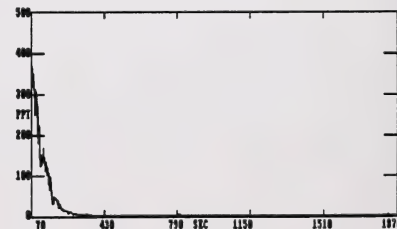
Scans : 70 to 1960
Date : 11-26-1988 Start Time : 22:07:35
Location: N6 on 1400 m W Source : W Elevated
Abs. Coordinates: (North 3196.3 m, East -59.6 m)
Transport from 191.79 deg
Power Law Cal. : $ppt = 439.3 * (voltage)^{1.205}$

PERIOD # 1

Time : 22 : 8 : 37 to 22 : 38 : 36 (1800 s)

Maximum Concentration (ppt) : 370
Peak (99 perc) to mean ratio : 25.47673
Plume intermittency : .1422222

	Total	Conditional
Mean Concentration (ppt)	11.42222	80.3125
Concentration fluc. intensity (%)	409.0654	123.3731
Skewness	5.114294	1.358124
Kurtosis	30.6415	3.741833
Percentile:	50	99 (Interpolated)
Conc. (ppt) :	633	291
Percentile:	86.00	88.83 91.94 94.67 95.83 97.94 98.72 99.33 99.78
Conc. (ppt):	2	6 19 63 113 205 275 310 349



Field Test 16
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:56 Dec 02 88
Test Stop Time: 01:14 Dec 03 88

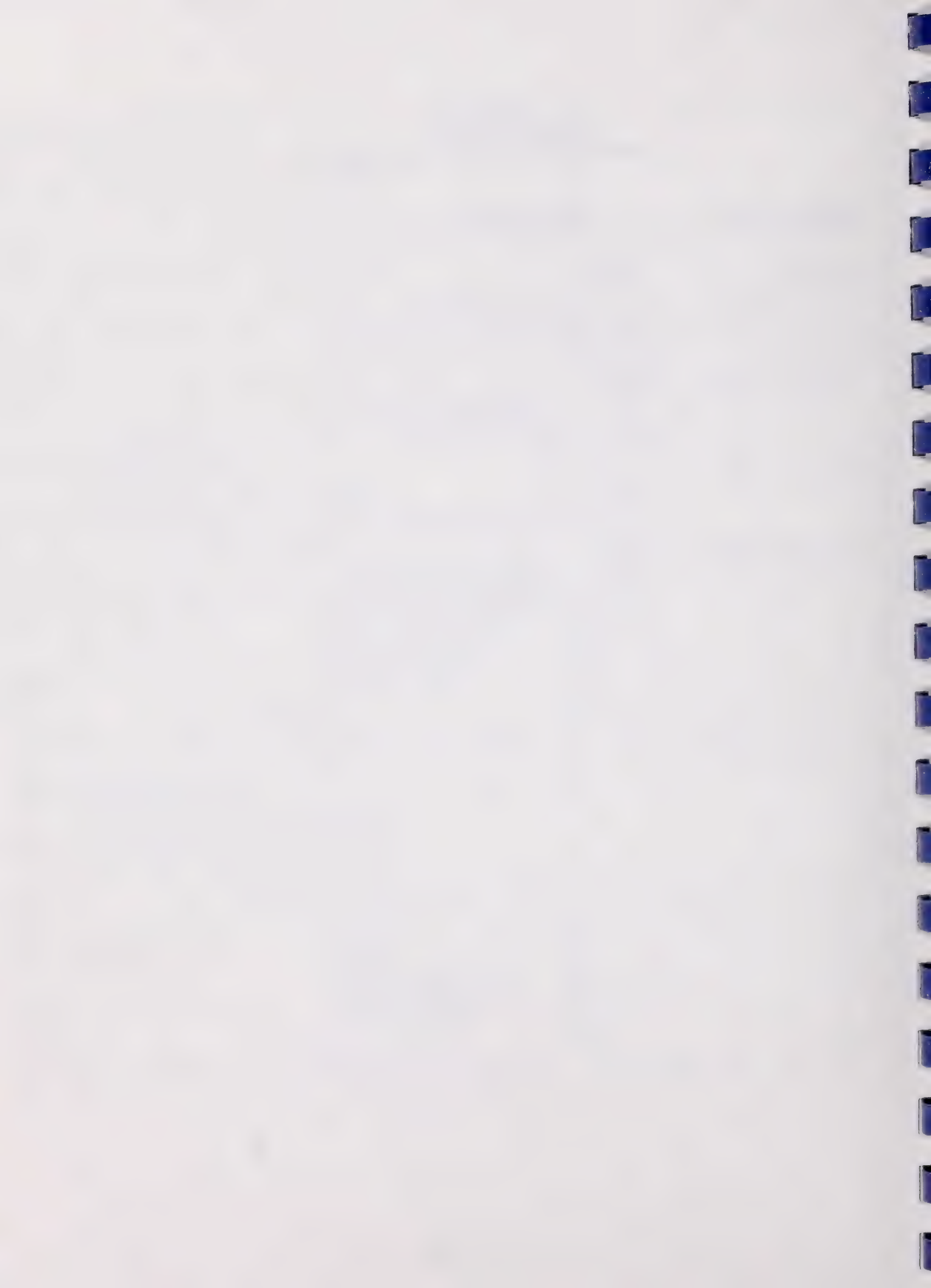
Source Type: Elevated

Source Location: West (17:56-22:21)
Center (22:54-1:14)

Analyser A Status: Mobile
Arc: W 700 m (17:56-22:21)
C 700 m (22:54-1:14)
Number of 30 minute Periods: 0

Analyser B Status: No useful data
Arc:
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: W 1400 m (17:56-22:21)
C 700 m (22:54-1:14)
Number of 30 minute Periods: 0



Field Test 17
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:36 Dec 06 88
Test Stop Time: 01:33 Dec 07 88

Source Type: Elevated

Source Location: North (17:36 to 20:34,00:06 to 1:33)
West (20:57 to 23:33)

Analyser A Status: Stationary\Mobile
Arc: N 1400 m (17:36 to 20:34,00:06 to 1:33)
W 1400 m (20:57 to 23:33)
Number of 30 minute Periods: 4

Analyser B Status: Mobile
Arc: N 1400 m (17:36 to 20:34,00:06 to 00:56)
W 1400 m (20:57 to 23:33)
N 700 m (00:56 to 1:33)
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: N 700 m (17:36 to 20:34,00:06 to 1:33)
W 700 m (20:57 to 23:33)
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T17A04)

Scans : 100 to 1899

Date : 12-06-1988 Start Time : 18:02:14

Location: M6 on 1400 m N Source : N Elevated

Abs. Coordinates: (North 1659 m, East 2127.3 m)

Transport from 306.4 deg

Power Law Cal. : Time = 16.45 , ppt = $2988.5 * (\text{voltage})^{1.733}$ For volt > .3429 : ppt = $1209.5 * (\text{voltage})^{.88811}$ At time = 25.45 , ppt = $1432.86 * (\text{voltage})^{1.3623}$ For volt > .3429 : ppt = $1209.51 * (\text{voltage})^{.88811}$

PERIOD # 1

Time : 18 : 3 : 46 to 18 : 33 : 45 (1800 s)

Maximum Concentration (ppt) : 484

Peak (99 perc) to mean ratio : 4.708636

Plume intermittency : .7977778

	Total	Conditional
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Mean Concentration (ppt) : 81.08611 101.64

Concentration fluc. intensity (%) : 125.3109 102.4946

Skewness : 1.433277 1.15248

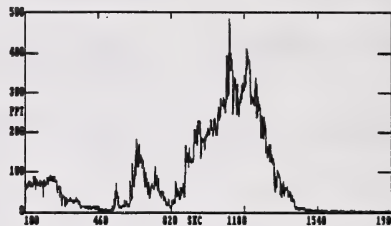
Kurtosis : 4.069431 3.294155

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 41 382

Percentile: 20.28 28.33 41.00 67.00 77.56 89.89 98.06 99.72 99.89

Conc. (ppt): 2 6 22 76 141 261 355 402 455



STATIONARY STATISTICS (T17A09)

Scans : 91 to 1890

Date : 12-06-1988 Start Time : 21:27:51

Location: T6 on 1400 m N Source : N Elevated

Abs. Coordinates: (North 1092.7 m, East 910.2 m)

Transport from 3.690002 deg

Power Law Cal. : Time = 16.45 , ppt = $2988.5 * (\text{voltage})^{1.733}$ For volt > .3429 : ppt = $1209.5 * (\text{voltage})^{.88811}$ At time = 25.45 , ppt = $1432.86 * (\text{voltage})^{1.3623}$ For volt > .3429 : ppt = $1209.51 * (\text{voltage})^{.88811}$

PERIOD # 1

Time : 21 : 29 : 14 to 21 : 59 : 13 (1800 s)

Maximum Concentration (ppt) : 1053

Peak (99 perc) to mean ratio : 4.524163

Plume intermittency : .4016667

	Total	Conditional
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Mean Concentration (ppt) : 224.9267 559.9834

Concentration fluc. intensity (%) : 163.2195 68.68269

Skewness : 1.236898 -.3218802

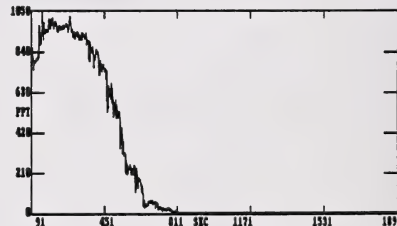
Kurtosis : 2.715651 1.385056

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 41 1018

Percentile: 59.83 61.39 65.28 69.89 74.06 76.28 79.83 85.61 98.00

Conc. (ppt): 2 8 32 131 262 525 744 855 982



STATIONARY STATISTICS (T17A11)

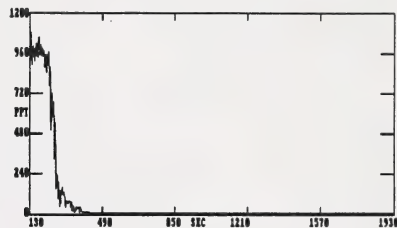
Scans : 131 to 1930
Date : 12-06-1988 Start Time : 22:27:24
Location: U4 on 1400 m N Source : N Elevated
Abs. Coordinates: (North 1112.1 m, East 751.5 m)
Transport from 10.24001 deg
Power Law Cal. : Time = 16.45 , ppt = $2988.5 * (\text{voltage})^{1.733}$
For volt > .3429 : ppt = $1209.5 * (\text{voltage})^{.88811}$
At time = 25.45 , ppt = $1432.86 * (\text{voltage})^{1.3623}$
For volt > .3429 : ppt = $1209.51 * (\text{voltage})^{.88811}$

PERIOD # 1

Time : 22 : 29 : 27 to 22 : 59 : 26 (1800 s)
Maximum Concentration (ppt) : 1084
Peak (99 perc) to mean ratio : 14.90638
Plume intermittency : .1566667

	Total	Conditional
Mean Concentration (ppt)	66.73333	425.9575
Concentration fluc. intensity (%)	340.5297	98.66004
Skewness	3.503951	.3526643
Kurtosis	13.65024	1.279472

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 41 995
Percentile: 84.33 85.50 87.61 92.00 93.00 93.56 94.50 95.00 99.56
Conc. (ppt): 2 8 33 133 268 539 764 879 1011



STATIONARY STATISTICS (T17A15)

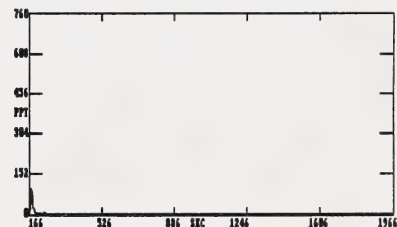
Scans : 166 to 3450
Date : 12-07-1988 Start Time : 00:32:31
Location: K2 on 1400 m N Source : N Elevated
Abs. Coordinates: (North 2086.2 m, East 2341 m)
Transport from 286.75 deg
Power Law Cal. : Time = 16.45 , ppt = $2988.5 * (\text{voltage})^{1.733}$
For volt > .3429 : ppt = $1209.5 * (\text{voltage})^{.88811}$
At time = 25.45 , ppt = $1432.86 * (\text{voltage})^{1.3623}$
For volt > .3429 : ppt = $1209.51 * (\text{voltage})^{.88811}$

PERIOD # 1

Time : 0 : 35 : 9 to 1 : 5 : 8 (1800 s)
Maximum Concentration (ppt) : 93
Peak (99 perc) to mean ratio : 25.59767
Plume intermittency : 6.111111E-02

	Total	Conditional
Mean Concentration (ppt)	.6294444	10.3
Concentration fluc. intensity (%)	844.7211	184.9789
Skewness	12.4192	2.763546
Kurtosis	174.7806	10.12208

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 41 16
Percentile: 95.89 97.39 98.72 99.33 99.39 99.72 99.83 99.83 99.94
Conc. (ppt): 2 4 10 24 38 59 74 81 89



Field Test 18
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:26 Dec 07 88
Test Stop Time: 20:56 Dec 07 88

Source Type: Elevated

Source Location: East (17:26 to 18:36)
Center (19:01 to 20:56)

Analyser A Status: Stationary\Mobile
Arc: E 1400 m (17:26 to 18:36)
C 700 m (19:01 to 20:56)
Number of 30 minute Periods: 1

Analyser B Status: Mobile
Arc: E 1400 m (17:26 to 18:36)
C 700 m (19:01 to 20:56)
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: E 700 m (17:26 to 18:36)
C 700 m (19:01 to 20:56)
Number of 30 minute Periods: 0

STATIONARY STATISTICS (T18A10)

Scans : 100 to 2550
Date : 12-07-1988 Start Time : 19:36:44
Location: G7 on 700 m C Source : C Elevated
Abs. Coordinates: (North 1547.2 m, East 1630.7 m)
Transport from 288.06 deg
Power Law Cal. : ppt = $1993.3 * (\text{voltage})^{1.744}$
For volt > .527 : ppt = $1178.1 * (\text{voltage})^{.922}$

PERIOD # 1

Time : 19 : 38 : 16 to 20 : 8 : 15 (1800 s)

Maximum Concentration (ppt) : 363

Peak (99 perc) to mean ratio : 11.12659

Plume intermittency : .1511111

	<u>Total</u>	<u>Conditional</u>
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Mean Concentration (ppt)	: 24.17278	159.9669
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Concentration fluc. intensity (%)	: 277.7018	56.25422
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Skewness	: 2.764436	-.2604257
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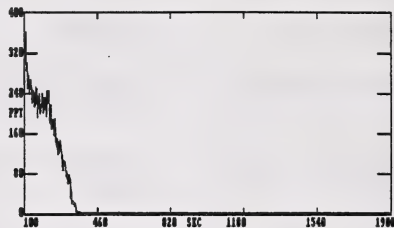
Kurtosis	: 9.490618	2.145057
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Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 269

Percentile: 85.06 85.89 86.72 87.50 89.67 93.56 99.11 99.56 99.67

Conc. (ppt): 2 6 19 62 112 201 270 304 342



Field Test 19
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:26 Dec 08 88
Test Stop Time: 20:56 Dec 08 88

Source Type: Ground

Source Location: South (17:50 to 19:25)
West (20:11 to 21:13)
Center (21:52 to 1:18)

Analyser A Status: Stationary\Mobile
Arc: S 1400 m (17:50 to 19:25)
W 1400 m (20:11 to 21:13)
C 700 m (21:52 to 1:18)
Number of 30 minute Periods: 0

Analyser B Status: Stationary\Mobile
Arc: S 1400 m (17:50 to 19:25)
W 1400 m (20:11 to 21:13)
C 700 m (21:52 to 1:18)
Number of 30 minute Periods: 0

Analyser C Status: Mobile
Arc: S 1400 m (17:50 to 19:25)
W 1400 m (20:11 to 21:13)
C 700 m (21:52 to 1:18)
Number of 30 minute Periods: 0

Field Test 20
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:10 Dec 09 88
Test Stop Time: 23:22 Dec 09 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary\Mobile
Arc: C 700 m
Number of 30 minute Periods: 5

Analyser B Status: Mobile
Arc: C 700 m
Number of 30 minute Periods: 0

Analyser C Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 2

STATIONARY STATISTICS (T20A04)

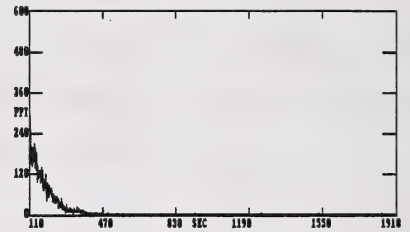
Scans : 110 to 5509
Date : 12-09-1988 Start Time : 18:36:17
Location: C0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
Transport from 227.49 deg
Power Law Cal. : Time = 16 , ppt = $2116 * (\text{voltage})^{1.4218}$
For volt > .3399 : ppt = $1249.5 * (\text{voltage})^{.9337}$
At time = 23.75 , ppt = $1795.7 * (\text{voltage})^{1.8033}$
For volt > .6606 : ppt = $1249.5 * (\text{voltage})^{.9337}$

PERIOD # 1

Time : 18 : 37 : 59 to 19 : 7 : 58 (1800 s)
Maximum Concentration (ppt) : 294
Peak (99 perc) to mean ratio : 18.73062
Plume intermittency : .1538889

	Total	Conditional
Mean Concentration (ppt)	9.235	60.01083
Concentration fluc. intensity (%)	344.9668	99.25718
Skewness	4.377273	1.195194
Kurtosis	23.88317	3.731516

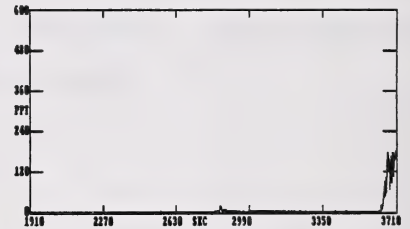
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 173
Percentile: 84.61 85.61 90.06 93.94 96.00 98.89 99.83 99.89 99.94
Conc. (ppt): 2 6 17 53 94 167 221 248 278

**PERIOD # 2**

Time : 19 : 7 : 59 to 19 : 37 : 58 (1800 s)
Maximum Concentration (ppt) : 169
Peak (99 perc) to mean ratio : 35.24698
Plume intermittency : .065

	Total	Conditional
Mean Concentration (ppt)	4.269444	65.68376
Concentration fluc. intensity (%)	530.1818	94.45118
Skewness	5.827191	.419309
Kurtosis	36.77787	1.52684

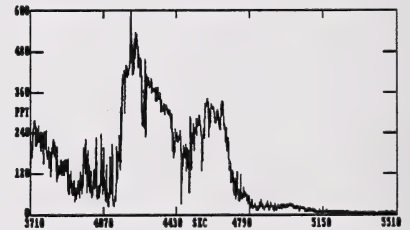
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 150
Percentile: 93.50 94.33 96.00 96.56 97.06 97.89 98.39 98.72 99.50
Conc. (ppt): 2 5 13 36 61 101 131 145 161

**PERIOD # 3**

Time : 19 : 37 : 59 to 20 : 7 : 58 (1800 s)
Maximum Concentration (ppt) : 569
Peak (99 perc) to mean ratio : 4.013402
Plume intermittency : .855

	Total	Conditional
Mean Concentration (ppt)	120.3761	140.7908
Concentration fluc. intensity (%)	106.4779	90.79433
Skewness	.937309	.763588
Kurtosis	2.888384	2.639872

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 72 483
Percentile: 14.50 21.50 38.67 53.11 65.67 89.28 97.50 98.78 99.89
Conc. (ppt): 2 7 24 85 160 302 414 470 534



STATIONARY STATISTICS (T20A05)

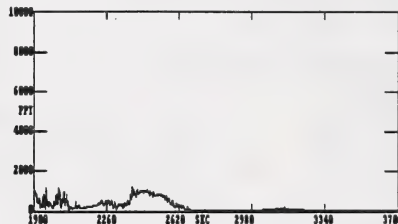
Scans : 100 to 4500
Date : 12-09-1988 Start Time : 20:27:23
Location: C0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
Transport from 227.49 deg
Power Law Cal. : Time = 16 , ppt = $2116 * (\text{voltage})^{1.4218}$
For volt > .3399 : ppt = $1249.5 * (\text{voltage})^{.9337}$
At time = 23.75 , ppt = $1795.7 * (\text{voltage})^{1.8033}$
For volt > .6606 : ppt = $1249.5 * (\text{voltage})^{.9337}$

PERIOD # 2

Time : 20 : 58 : 55 to 21 : 28 : 54 (1800 s)
Maximum Concentration (ppt) : 1186
Peak (99 perc) to mean ratio : 5.437874
Plume intermittency : .6077778

	Total	Conditional
Mean Concentration (ppt)	194.255	319.6152
Concentration fluc. intensity (%)	147.0284	96.00163
Skewness	1.568751	.9515388
Kurtosis	4.306432	2.631073

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 53 1056
Percentile: 39.67 43.78 47.39 62.89 76.78 87.00 93.67 97.44 99.78
Conc. (ppt): 2 8 34 142 288 584 832 959 1105



STATIONARY STATISTICS (T20A07)

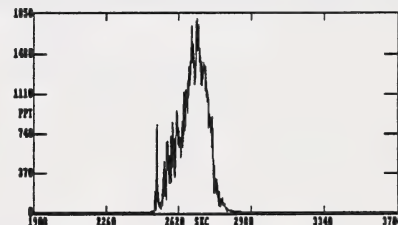
Scans : 101 to 3700
Date : 12-09-1988 Start Time : 22:17:51
Location: D3 on 700 m C Source : C Ground
Abs. Coordinates: (North 2191.3 m, East 1519.8 m)
Transport from 232.4 deg
Power Law Cal. : Time = 16 , ppt = $2116 * (\text{voltage})^{1.4218}$
For volt > .3399 : ppt = $1249.5 * (\text{voltage})^{.9337}$
At time = 23.75 , ppt = $1795.7 * (\text{voltage})^{1.8033}$
For volt > .6606 : ppt = $1249.5 * (\text{voltage})^{.9337}$

PERIOD # 2

Time : 22 : 49 : 24 to 23 : 19 : 23 (1800 s)
Maximum Concentration (ppt) : 1806
Peak (99 perc) to mean ratio : 11.35159
Plume intermittency : .2916667

	Total	Conditional
Mean Concentration (ppt)	141.0617	483.64
Concentration fluc. intensity (%)	257.7178	110.8545
Skewness	2.756987	.8130531
Kurtosis	9.666104	2.298894

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 53 1601
Percentile: 74.94 77.56 80.72 84.89 87.44 92.72 95.83 98.17 99.39
Conc. (ppt): 2 9 42 190 403 853 1241 1442 1676



STATIONARY STATISTICS (T20C02)

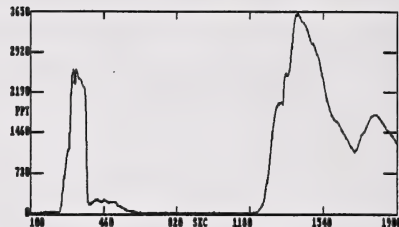
Scans : 101 to 3700
Date : 12-09-1988 Start Time : 20:28:00
Location: C8 on 700 m C Source : C Ground
Abs. Coordinates: (North 2265.9 m, East 1453.3 m)
Transport from 224.21 deg
Power Law Cal. : ppt = 972.5 *(voltage)^ .8493

PERIOD # 1

Time : 20 : 29 : 32 to 20 : 59 : 31 (1800 s)
Maximum Concentration (ppt) : 3623
Peak (99 perc) to mean ratio : 4.083638
Plume intermittency : .608889

	Total	Conditional
Mean Concentration (ppt)	868.445	1426.278
Concentration fluc. intensity (%)	124.9051	74.75522
Skewness	.9510174	.2789911
Kurtosis	2.644088	2.068163

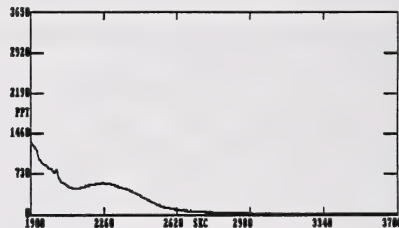
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 171 3546
Percentile: 39.11 39.11 44.39 57.06 58.89 73.22 87.28 92.56 96.28
Conc. (ppt): 2 12 60 310 703 1596 2405 2833 3338

**PERIOD # 2**

Time : 20 : 59 : 32 to 21 : 29 : 31 (1800 s)
Maximum Concentration (ppt) : 1278
Peak (99 perc) to mean ratio : 5.880918
Plume intermittency : .5416667

	Total	Conditional
Mean Concentration (ppt)	203.8117	376.2677
Concentration fluc. intensity (%)	143.3635	80.92957
Skewness	1.446062	.731503
Kurtosis	4.434627	3.086033

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 27 1199
Percentile: 45.83 45.83 51.83 64.78 69.39 92.22 96.22 97.94 98.89
Conc. (ppt): 2 9 36 149 306 625 894 1031 1190



Field Test 21
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:46 Dec 10 88
Test Stop Time: 08:30 Dec 11 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 11

Analyser B Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 4

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 6

STATIONARY STATISTICS (T21A02)

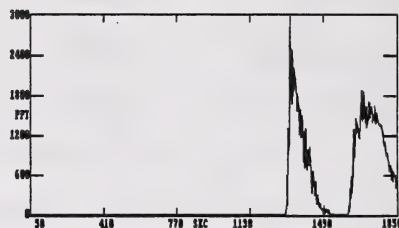
Scans : 50 to 16450
Date : 12-10-1988 Start Time : 17:47:00
Location: G0 on 700 m C Source : C Ground
Abs. Coordinates: (North 1491.1 m, East 1609.7 m)
Transport from 292.97 deg
Power Law Cal. : Time = 16.32 , ppt = $1932.5 * (\text{voltage})^{1.566}$
For volt > .438 : ppt = $1168 * (\text{voltage})^{.956}$
At time = 33.9 , ppt = $1720.2 * (\text{voltage})^{1.862}$
For volt > .653 : ppt = $1168 * (\text{voltage})^{.956}$

PERIOD # 1

Time : 17 : 47 : 42 to 18 : 17 : 41 (1800 s)
Maximum Concentration (ppt) : 3119
Peak (99 perc) to mean ratio : 8.133443
Plume intermittency : .2788889

	Total	Conditional
Mean Concentration (ppt)	254.5417	912.6992
Concentration fluc. intensity (%)	210.566	71.79328
Skewness	2.056019	.1595787
Kurtosis	6.201226	2.18271

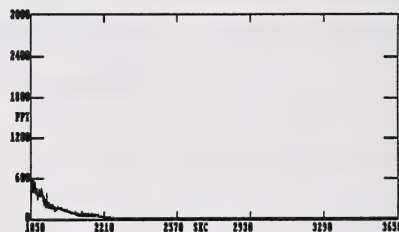
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2070
Percentile: 72.83 74.28 75.94 79.28 82.56 91.83 99.17 99.72 99.94
Conc. (ppt): 2 11 56 279 624 1395 2086 2450 2878

**PERIOD # 2**

Time : 18 : 17 : 42 to 18 : 47 : 41 (1800 s)
Maximum Concentration (ppt) : 605
Peak (99 perc) to mean ratio : 14.00053
Plume intermittency : .2466667

	Total	Conditional
Mean Concentration (ppt)	30.19833	122.4257
Concentration fluc. intensity (%)	272.7913	104.0307
Skewness	3.611693	1.450972
Kurtosis	16.92576	4.377216

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 423
Percentile: 75.33 78.00 80.44 89.00 94.50 96.89 99.33 99.72 99.89
Conc. (ppt): 2 7 25 89 168 319 439 499 567

**STATIONARY STATISTICS (T21A04)**

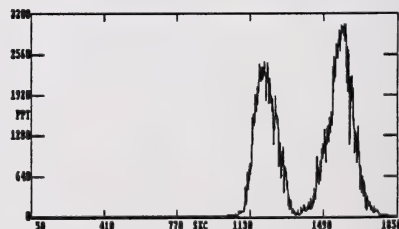
Scans : 50 to 12750
Date : 12-10-1988 Start Time : 23:30:52
Location: D0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2072.6 m, East 1593.6 m)
Transport from 243.86 deg
Power Law Cal. : Time = 16.32 , ppt = $1932.5 * (\text{voltage})^{1.566}$
For volt > .438 : ppt = $1168 * (\text{voltage})^{.956}$
At time = 33.9 , ppt = $1720.2 * (\text{voltage})^{1.862}$
For volt > .653 : ppt = $1168 * (\text{voltage})^{.956}$

PERIOD # 1

Time : 23 : 31 : 34 to 0 : 1 : 33 (1800 s)
Maximum Concentration (ppt) : 3031
Peak (99 perc) to mean ratio : 7.212582
Plume intermittency : .4816667

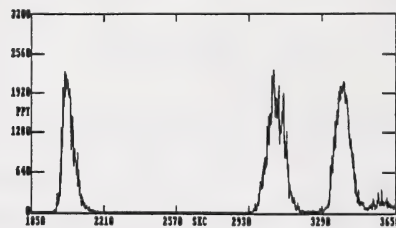
	Total	Conditional
Mean Concentration (ppt)	402.5794	835.8051
Concentration fluc. intensity (%)	188.8	109.4801
Skewness	1.926419	.8573266
Kurtosis	5.534255	2.410657

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2904
Percentile: 54.33 58.50 63.67 74.06 78.06 86.17 92.39 96.17 98.17
Conc. (ppt): 2 11 55 274 610 1360 2030 2383 2798

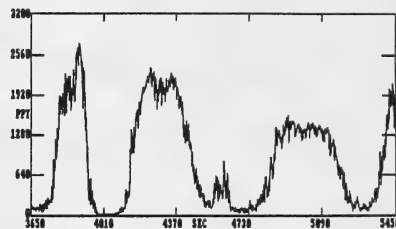


PERIOD # 2

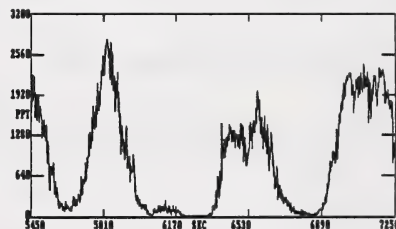
Time : 0 : 1 : 34 to 0 : 31 : 33 (1800 s)
 Maximum Concentration (ppt) : 2294
 Peak (99 perc) to mean ratio : 7.065592
 Plume intermittency : .5305555
 Total Conditional
 Mean Concentration (ppt) : 299.9217 565.2974
 Concentration fluc. intensity (%) : 190.6007 120.7473
 Skewness : 2.004079 1.068759
 Kurtosis : 5.713485 2.672859
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 8 2119
 Percentile: 48.11 50.94 59.11 76.44 80.72 87.33 92.61 94.89 99.06
 Conc. (ppt): 2 10 48 225 488 1058 1558 1819 2123

**PERIOD # 3**

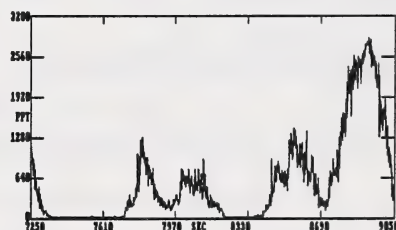
Time : 0 : 31 : 34 to 1 : 1 : 33 (1800 s)
 Maximum Concentration (ppt) : 2736
 Peak (99 perc) to mean ratio : 2.861352
 Plume intermittency : .9566666
 Total Conditional
 Mean Concentration (ppt) : 890.7089 931.0546
 Concentration fluc. intensity (%) : 85.95994 81.45908
 Skewness : .4204322 .3657892
 Kurtosis : 1.794358 1.767145
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 723 2549
 Percentile: 4.33 5.39 8.67 34.50 46.67 60.72 84.00 94.83 98.89
 Conc. (ppt): 2 11 52 255 562 1240 1842 2158 2528

**PERIOD # 4**

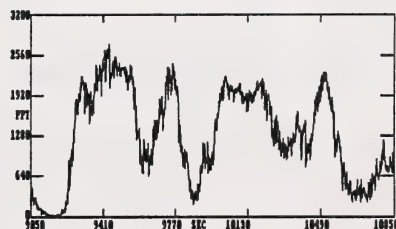
Time : 1 : 1 : 34 to 1 : 31 : 33 (1800 s)
 Maximum Concentration (ppt) : 2803
 Peak (99 perc) to mean ratio : 2.978496
 Plume intermittency : .9461111
 Total Conditional
 Mean Concentration (ppt) : 882.3184 932.5737
 Concentration fluc. intensity (%) : 91.69848 86.11964
 Skewness : .4709204 .3964292
 Kurtosis : 1.832027 1.788625
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 691 2628
 Percentile: 5.56 7.67 16.72 39.78 46.78 65.67 82.78 93.78 98.78
 Conc. (ppt): 2 11 53 259 573 1267 1885 2209 2589

**PERIOD # 5**

Time : 1 : 31 : 34 to 2 : 1 : 33 (1800 s)
 Maximum Concentration (ppt) : 2858
 Peak (99 perc) to mean ratio : 4.900281
 Plume intermittency : .7944444
 Total Conditional
 Mean Concentration (ppt) : 553.4889 696.6993
 Concentration fluc. intensity (%) : 128.0309 104.723
 Skewness : 1.628173 1.394331
 Kurtosis : 4.893075 4.067962
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 262 2712
 Percentile: 23.22 28.67 32.83 50.06 65.28 87.00 91.61 93.67 98.50
 Conc. (ppt): 2 11 53 263 582 1290 1920 2251 2639

**PERIOD # 6**

Time : 2 : 1 : 34 to 2 : 31 : 33 (1800 s)
 Maximum Concentration (ppt) : 2744
 Peak (99 perc) to mean ratio : 1.957079
 Plume intermittency : .9894444
 Total Conditional
 Mean Concentration (ppt) : 1295.365 1309.184
 Concentration fluc. intensity (%) : 57.34819 56.11192
 Skewness : -.1768167 -.1827477
 Kurtosis : 1.797347 1.808093
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 1309 2535
 Percentile: 1.61 3.33 5.33 10.83 21.78 47.89 67.39 87.50 99.00
 Conc. (ppt): 2 11 52 255 563 1243 1847 2164 2535

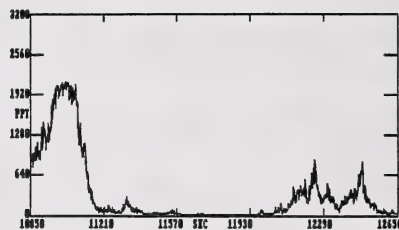


PERIOD # 7

Time : 2 : 31 : 34 to 3 : 1 : 33 (1800 s)
 Maximum Concentration (ppt) : 2113
 Peak (99 perc) to mean ratio : 6.370608
 Plume intermittency : .8733333

	Total	Conditional
Mean Concentration (ppt)	326.2472	373.5655
Concentration fluc. intensity (%)	169.1032	153.971
Skewness	2.075838	1.876577
Kurtosis	6.184722	5.320674

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 94 2078
 Percentile: 16.56 24.22 43.06 67.11 81.28 87.33 92.33 93.06 95.50
 Conc. (ppt): 2 10 46 213 457 983 1441 1679 1957

**STATIONARY STATISTICS (T21A07)**

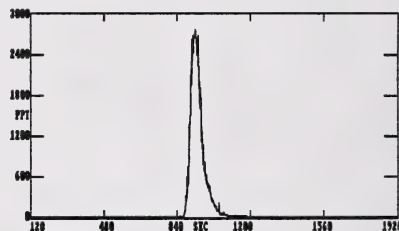
Scans : 120 to 9600
 Date : 12-11-1988 Start Time : 06:27:24
 Location: A0 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2441.2 m, East 1143.4 m)
 Transport from 194.75 deg
 Power Law Cal. : Time = 16.32 , ppt = 1932.5 *(voltage)^ 1.566
 For volt > .438 : ppt = 1168 *(voltage)^ .956
 At time = 33.9 , ppt = 1720.2 *(voltage)^ 1.862
 For volt > .653 : ppt = 1168 *(voltage)^ .956

PERIOD # 1

Time : 6 : 29 : 16 to 6 : 59 : 15 (1800 s)
 Maximum Concentration (ppt) : 2771
 Peak (99 perc) to mean ratio : 25.50181
 Plume intermittency : .1838889

	Total	Conditional
Mean Concentration (ppt)	102.4483	557.1208
Concentration fluc. intensity (%)	412.0779	151.8708
Skewness	4.888928	1.542977
Kurtosis	26.89164	3.930038

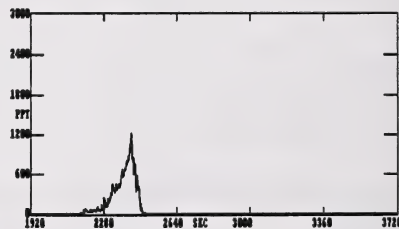
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2613
 Percentile: 81.61 84.22 90.06 92.83 95.06 96.50 97.50 98.11 98.67
 Conc. (ppt): 2 11 53 257 568 1254 1864 2185 2560

**PERIOD # 2**

Time : 6 : 59 : 16 to 7 : 29 : 15 (1800 s)
 Maximum Concentration (ppt) : 1212
 Peak (99 perc) to mean ratio : 16.44039
 Plume intermittency : .1911111

	Total	Conditional
Mean Concentration (ppt)	54.32	284.2325
Concentration fluc. intensity (%)	320.6766	107.5348
Skewness	3.826899	1.048184
Kurtosis	17.97657	3.050455

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 893
 Percentile: 80.89 82.39 84.22 90.94 92.33 96.61 98.89 99.22 99.78
 Conc. (ppt): 2 8 35 144 293 596 850 979 1129

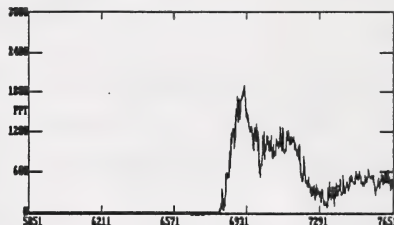


STATIONARY STATISTICS (T21B29)

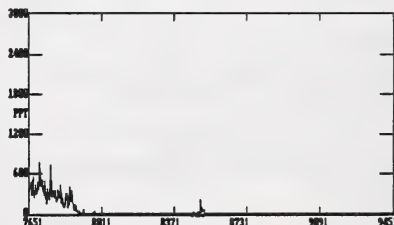
Scans : 4051 to 22050
Date : 12-11-1988 Start Time : 02:42:42
Location: C0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
Transport from 227.49 deg
Power Law Cal. : ppt = 550.94 *(voltage)^ 1.039

PERIOD # 2

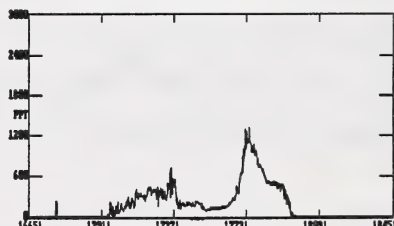
Time : 4 : 20 : 5 to 4 : 50 : 4 (1800 s)
Maximum Concentration (ppt) : 1893
Peak (99 perc) to mean ratio : 5.170123
Plume intermittency : .4744444
Total Conditional
Mean Concentration (ppt) : 325.7217 686.5328
Concentration fluc. intensity (%) : 136.8239 60.21969
Skewness : 1.315162 .7311391
Kurtosis : 3.823678 2.753392
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1684
Percentile: 52.56 52.56 52.89 55.72 67.22 83.50 96.28 97.78 99.50
Conc. (ppt): 2 10 44 197 419 890 1298 1510 1755

**PERIOD # 3**

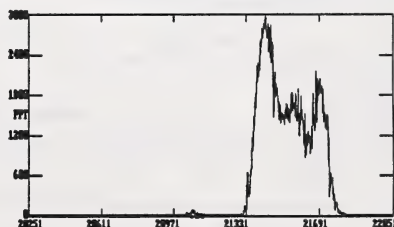
Time : 4 : 50 : 5 to 5 : 20 : 4 (1800 s)
Maximum Concentration (ppt) : 761
Peak (99 perc) to mean ratio : 12.85115
Plume intermittency : .1611111
Total Conditional
Mean Concentration (ppt) : 39.79889 247.0276
Concentration fluc. intensity (%) : 278.0867 63.79802
Skewness : 3.080744 .488112
Kurtosis : 12.63844 3.126443
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 511
Percentile: 83.89 83.89 84.94 87.72 90.00 97.28 99.50 99.56 99.89
Conc. (ppt): 2 7 28 104 202 392 546 624 712

**PERIOD # 8**

Time : 7 : 20 : 5 to 7 : 50 : 4 (1800 s)
Maximum Concentration (ppt) : 1305
Peak (99 perc) to mean ratio : 6.549638
Plume intermittency : .5088889
Total Conditional
Mean Concentration (ppt) : 173.5561 341.0491
Concentration fluc. intensity (%) : 146.6182 77.64289
Skewness : 1.931926 1.48995
Kurtosis : 6.772482 4.840639
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 31 1137
Percentile: 49.11 49.11 50.22 61.83 79.06 93.83 96.72 98.28 99.67
Conc. (ppt): 2 9 36 152 311 637 912 1052 1215

**PERIOD # 10**

Time : 8 : 20 : 5 to 8 : 50 : 4 (1800 s)
Maximum Concentration (ppt) : 2975
Peak (99 perc) to mean ratio : 7.395951
Plume intermittency : .3127778
Total Conditional
Mean Concentration (ppt) : 383.0561 1224.691
Concentration fluc. intensity (%) : 193.6774 69.71633
Skewness : 1.779876 1.673049E-02
Kurtosis : 4.929764 2.055784
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2833
Percentile: 68.72 68.72 73.61 76.33 78.28 82.67 95.28 96.61 98.39
Conc. (ppt): 2 11 55 270 601 1337 1994 2340 2746



STATIONARY STATISTICS (T21C04)

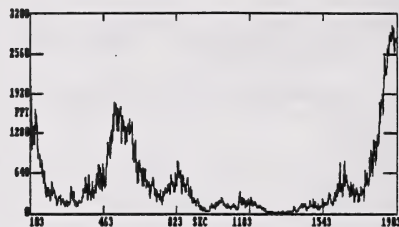
Scans : 103 to 3702
Date : 12-10-1988 Start Time : 20:01:34
Location: E8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1922.2 m, East 1647.1 m)
Transport from 256.96 deg
Power Law Cal. : Time = 16.42 , ppt = $913.4 * (\text{voltage})^{.8148}$
At time = 34.51 , ppt = $733.9 * (\text{voltage})^{.84}$

PERIOD # 1

Time : 20 : 3 : 8 to 20 : 33 : 7 (1800 s)
Maximum Concentration (ppt) : 2901
Peak (99 perc) to mean ratio : 5.957088
Plume intermittency : .9161111

	Total	Conditional
Mean Concentration (ppt)	462.9922	505.3887
Concentration fluc. intensity (%)	122.0389	113.1601
Skewness	2.222124	2.165053
Kurtosis	8.126529	7.737889

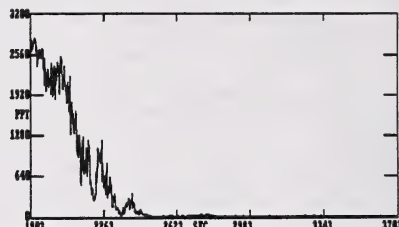
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 267 2758
Percentile: 8.39 8.39 11.17 49.89 77.61 90.72 96.44 97.22 98.44
Conc. (ppt): 2 11 54 265 589 1307 1947 2284 2679

**PERIOD # 2**

Time : 20 : 33 : 8 to 21 : 3 : 7 (1800 s)
Maximum Concentration (ppt) : 2714
Peak (99 perc) to mean ratio : 7.587852
Plume intermittency : .3383333

	Total	Conditional
Mean Concentration (ppt)	344.7978	1019.107
Concentration fluc. intensity (%)	208.6477	90.06826
Skewness	2.074089	.4550484
Kurtosis	5.860621	1.631264

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2616
Percentile: 66.17 66.17 70.56 77.39 81.72 87.44 89.56 93.61 97.89
Conc. (ppt): 2 11 52 253 558 1231 1828 2141 2508

**STATIONARY STATISTICS (T21C14)**

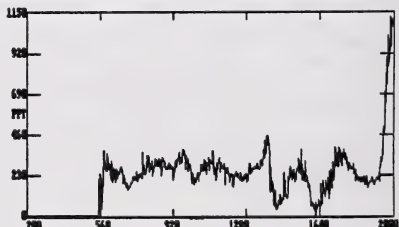
Scans : 201 to 9200
Date : 12-11-1988 Start Time : 05:10:45
Location: B0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2363.5 m, East 1327 m)
Transport from 211.12 deg
Power Law Cal. : Time = 16.42 , ppt = $913.4 * (\text{voltage})^{.8148}$
At time = 34.51 , ppt = $733.9 * (\text{voltage})^{.84}$

PERIOD # 1

Time : 5 : 13 : 57 to 5 : 43 : 56 (1800 s)
Maximum Concentration (ppt) : 1127
Peak (99 perc) to mean ratio : 4.756506
Plume intermittency : .8038889

	Total	Conditional
Mean Concentration (ppt)	207.9894	258.7291
Concentration fluc. intensity (%)	77.53278	53.5848
Skewness	1.924227	3.443518
Kurtosis	11.99005	20.20256

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 206 989
Percentile: 19.61 19.61 20.11 27.44 73.28 97.72 98.28 98.72 99.22
Conc. (ppt): 2 8 34 137 276 558 793 913 1051

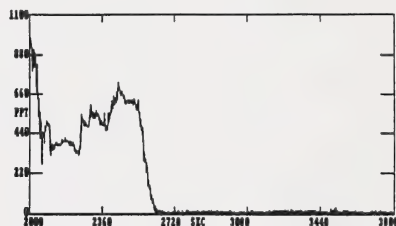


PERIOD # 2

Time : 5 : 43 : 57 to 6 : 13 : 56 (1800 s)
Maximum Concentration (ppt) : 1088
Peak (99 perc) to mean ratio : 5.088931
Plume intermittency : .3538889

	Total	Conditional
Mean Concentration (ppt)	189.4478	535.3312
Concentration fluc. intensity (%)	149.0794	37.46943
Skewness	1.070308	-.3201244
Kurtosis	2.678969	3.825512

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 964
Percentile: 64.61 64.61 65.39 66.67 67.67 80.39 97.33 98.28 99.44
Conc. (ppt): 2 8 33 134 269 541 767 882 1015

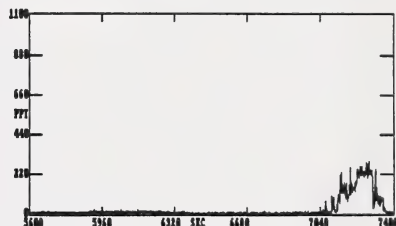


PERIOD # 4

Time : 6 : 43 : 57 to 7 : 13 : 56 (1800 s)
Maximum Concentration (ppt) : 327
Peak (99 perc) to mean ratio : 12.52931
Plume intermittency : .1266667

	Total	Conditional
Mean Concentration (ppt)	22.64611	178.7851
Concentration fluc. intensity (%)	288.0288	42.13082
Skewness	2.919	2.619574E-02
Kurtosis	10.40399	1.669409

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 284
Percentile: 87.33 87.33 87.33 87.56 90.11 94.17 96.39 98.72 99.78
Conc. (ppt): 2 6 18 58 103 183 245 275 309

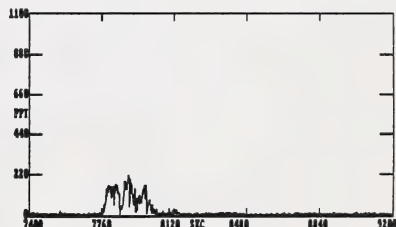


PERIOD # 5

Time : 7 : 13 : 57 to 7 : 43 : 56 (1800 s)
Maximum Concentration (ppt) : 241
Peak (99 perc) to mean ratio : 11.83138
Plume intermittency : .1455556

	Total	Conditional
Mean Concentration (ppt)	16.45056	113.0191
Concentration fluc. intensity (%)	275.0391	49.66207
Skewness	2.836337	.1001352
Kurtosis	10.05655	1.916532

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 195
Percentile: 85.44 85.44 85.44 87.83 90.56 94.56 98.61 99.33 99.78
Conc. (ppt): 2 5 16 46 80 139 183 204 228



Field Test 22
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 18:03 Dec 11 88
Test Stop Time: 08:01 Dec 12 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 11

Analyser B Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 4

Analyser C Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 1

STATIONARY STATISTICS (T22A02)

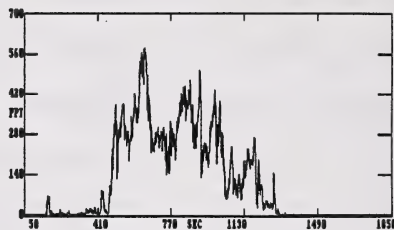
Scans : 50 to 3800
Date : 12-11-1988 Start Time : 18:04:12
Location: F5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1783.6 m, East 1664.9 m)
Transport from 268.41 deg
Power Law Cal. : Time = 15.72 , ppt = $2759.3 * (\text{voltage})^{2.003}$
For volt > .459 : ppt = $1223.9 * (\text{voltage})^{.958}$
At time = 32.72 , ppt = $1481.3 * (\text{voltage})^{1.686}$
For volt > .769 : ppt = $1223.9 * (\text{voltage})^{.958}$

PERIOD # 1

Time : 18 : 4 : 54 to 18 : 34 : 53 (1800 s)
Maximum Concentration (ppt) : 583
Peak (99 perc) to mean ratio : 4.666394
Plume intermittency : .6211111

	Total	Conditional
Mean Concentration (ppt)	115.3161	185.661
Concentration fluc. intensity (%)	129.4914	81.39977
Skewness	1.028451	.3709629
Kurtosis	2.862975	2.148685

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 17 538
Percentile: 39.33 46.11 52.72 60.33 66.17 85.94 96.72 97.94 99.17
Conc. (ppt): 2 7 24 86 163 308 424 482 547

**STATIONARY STATISTICS (T22A03)**

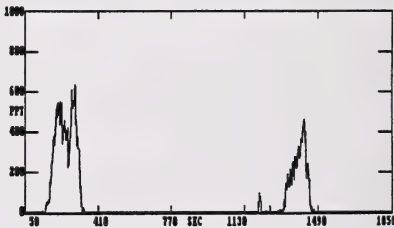
Scans : 50 to 6550
Date : 12-11-1988 Start Time : 19:17:35
Location: H0 on 700 m C Source : C Ground
Abs. Coordinates: (North 1320.5 m, East 1506.6 m)
Transport from 309.34 deg
Power Law Cal. : Time = 15.72 , ppt = $2759.3 * (\text{voltage})^{2.003}$
For volt > .459 : ppt = $1223.9 * (\text{voltage})^{.958}$
At time = 32.72 , ppt = $1481.3 * (\text{voltage})^{1.686}$
For volt > .769 : ppt = $1223.9 * (\text{voltage})^{.958}$

PERIOD # 1

Time : 19 : 18 : 17 to 19 : 48 : 16 (1800 s)
Maximum Concentration (ppt) : 632
Peak (99 perc) to mean ratio : 10.537
Plume intermittency : .2355556

	Total	Conditional
Mean Concentration (ppt)	52.66889	223.5943
Concentration fluc. intensity (%)	247.8727	82.6335
Skewness	2.539604	.3116935
Kurtosis	8.347789	1.791771

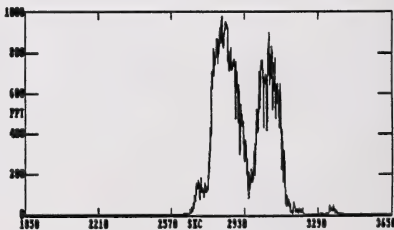
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 17 555
Percentile: 76.89 79.44 81.83 84.61 87.17 92.11 96.89 98.44 99.61
Conc. (ppt): 2 7 25 91 174 332 458 521 593

**PERIOD # 2**

Time : 19 : 48 : 17 to 20 : 18 : 16 (1800 s)
Maximum Concentration (ppt) : 982
Peak (99 perc) to mean ratio : 7.097511
Plume intermittency : .4055555

	Total	Conditional
Mean Concentration (ppt)	128.8333	317.6712
Concentration fluc. intensity (%)	198.9661	100.5509
Skewness	1.903158	.5412427
Kurtosis	5.135353	1.71377

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 914
Percentile: 59.50 66.44 72.00 77.39 81.50 86.78 92.00 96.11 99.06
Conc. (ppt): 2 8 31 124 248 493 696 799 917



PERIOD # 3

Time : 20 : 18 : 17 to 20 : 48 : 16 (1800 s)

Maximum Concentration (ppt) : 794

Peak (99 perc) to mean ratio : 17.07656

Plume intermittency : .2366667

	Total	Conditional
Mean Concentration (ppt)	41.13722	173.8192
Concentration fluc. intensity (%)	335.1592	137.6657
Skewness	3.700454	1.173348
Kurtosis	16.00306	2.907925

Mean Concentration (ppt)

Concentration fluc. intensity (%)

Skewness

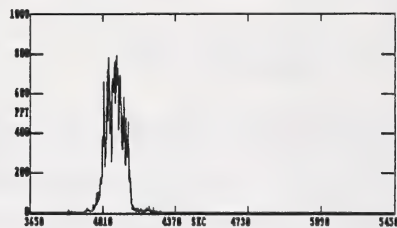
Kurtosis

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 702

Percentile: 77.28 82.61 89.33 91.50 92.67 95.28 97.28 98.06 99.72

Conc. (ppt): 2 7 28 107 209 407 569 650 743

**STATIONARY STATISTICS (T22A04)**

Scans : 50 to 25700

Date : 12-11-1988 Start Time : 21:33:08

Location: I0 on 700 m C Source : C Ground

Abs. Coordinates: (North 1185.9 m, East 1359.6 m)

Transport from 325.71 deg

Power Law Cal. : Time = 15.72 , ppt = 2759.3 *(voltage)^ 2.003

For volt > .459 : ppt = 1223.9 *(voltage)^ .958

At time = 32.72 , ppt = 1481.3 *(voltage)^ 1.686

For volt > .769 : ppt = 1223.9 *(voltage)^ .958

PERIOD # 2

Time : 22 : 3 : 50 to 22 : 33 : 49 (1800 s)

Maximum Concentration (ppt) : 1962

Peak (99 perc) to mean ratio : 8.722366

Plume intermittency : .315

	Total	Conditional
Mean Concentration (ppt)	153.9678	488.7866
Concentration fluc. intensity (%)	184.0572	61.81641
Skewness	2.440861	1.995758
Kurtosis	10.86607	8.824852

Mean Concentration (ppt)

Concentration fluc. intensity (%)

Skewness

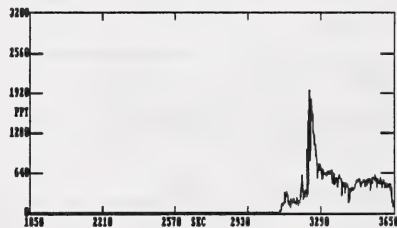
Kurtosis

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 1343

Percentile: 68.67 68.78 69.11 73.50 81.39 97.83 99.00 99.39 99.89

Conc. (ppt): 2 10 44 202 431 919 1343 1563 1819

**PERIOD # 3**

Time : 22 : 33 : 50 to 23 : 3 : 49 (1800 s)

Maximum Concentration (ppt) : 183

Peak (99 perc) to mean ratio : 32.85998

Plume intermittency : 7.222223E-02

	Total	Conditional
Mean Concentration (ppt)	4.081111	56.50769
Concentration fluc. intensity (%)	498.1253	92.96577
Skewness	6.123727	.930941
Kurtosis	42.83375	2.614551

Mean Concentration (ppt)

Concentration fluc. intensity (%)

Skewness

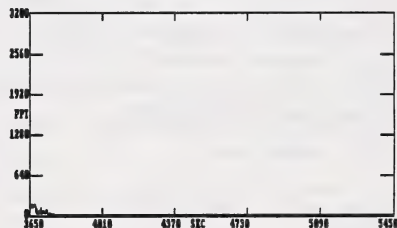
Kurtosis

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 134

Percentile: 92.94 93.56 94.72 96.44 97.72 98.39 99.17 99.44 99.89

Conc. (ppt): 2 5 14 38 65 109 141 157 174

**PERIOD # 9**

Time : 1 : 33 : 50 to 2 : 3 : 49 (1800 s)

Maximum Concentration (ppt) : 399

Peak (99 perc) to mean ratio : 10.12408

Plume intermittency : .2727778

	Total	Conditional
Mean Concentration (ppt)	32.70444	119.8941
Concentration fluc. intensity (%)	232.5746	86.50195
Skewness	2.621628	.7587026
Kurtosis	9.185636	2.42483

Mean Concentration (ppt)

Concentration fluc. intensity (%)

Skewness

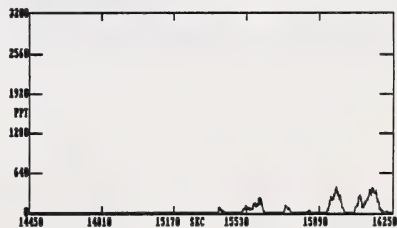
Kurtosis

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 331

Percentile: 72.72 75.83 77.72 83.83 89.50 94.17 97.28 99.11 99.89

Conc. (ppt): 2 6 20 66 120 219 296 333 376

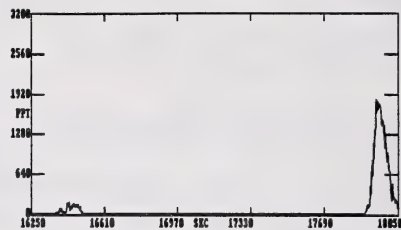


PERIOD # 10

Time : 2 : 3 : 50 to 2 : 33 : 49 (1800 s)
 Maximum Concentration (ppt) : 1834
 Peak (99 perc) to mean ratio : 22.06443
 Plume intermittency : .1794444

	<u>Total</u>	<u>Conditional</u>
Mean Concentration (ppt)	: 78.19722	435.774
Concentration fluc. intensity (%)	: 376.1128	131.068
Skewness	: 4.46885	1.288531
Kurtosis	: 22.64725	3.139824

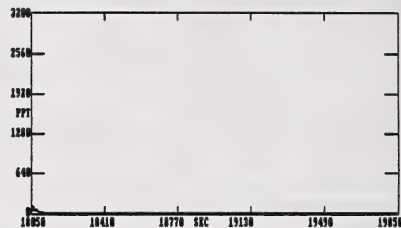
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1725
 Percentile: 82.39 84.17 86.61 93.00 94.72 95.94 97.22 98.22 98.78
 Conc. (ppt): 2 10 43 192 408 865 1260 1464 1701

**PERIOD # 11**

Time : 2 : 33 : 50 to 3 : 3 : 49 (1800 s)
 Maximum Concentration (ppt) : 126
 Peak (99 perc) to mean ratio : 40.42969
 Plume intermittency : 4.611111E-02

	<u>Total</u>	<u>Conditional</u>
Mean Concentration (ppt)	: 1.491667	32.3494
Concentration fluc. intensity (%)	: 658.418	102.2298
Skewness	: 8.390262	1.155697
Kurtosis	: 81.04072	3.374486

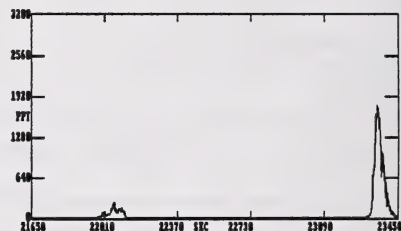
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 60
 Percentile: 95.67 96.61 97.00 98.22 98.72 99.39 99.78 99.83 99.89
 Conc. (ppt): 2 4 11 30 48 78 99 109 120

**PERIOD # 13**

Time : 3 : 33 : 50 to 4 : 3 : 49 (1800 s)
 Maximum Concentration (ppt) : 1786
 Peak (99 perc) to mean ratio : 29.0263
 Plume intermittency : .1783333

	<u>Total</u>	<u>Conditional</u>
Mean Concentration (ppt)	: 50.82278	284.9875
Concentration fluc. intensity (%)	: 431.0078	157.8351
Skewness	: 5.710642	2.002048
Kurtosis	: 36.92916	5.777268

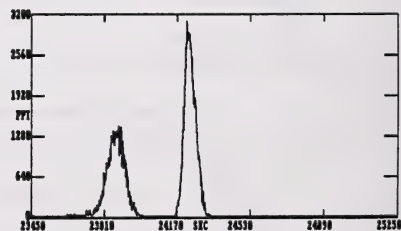
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1475
 Percentile: 82.28 84.06 87.56 95.00 96.33 97.83 98.44 98.78 99.83
 Conc. (ppt): 2 9 42 189 399 845 1228 1427 1657

**PERIOD # 14**

Time : 4 : 3 : 50 to 4 : 33 : 49 (1800 s)
 Maximum Concentration (ppt) : 3102
 Peak (99 perc) to mean ratio : 14.51756
 Plume intermittency : .3433333

	<u>Total</u>	<u>Conditional</u>
Mean Concentration (ppt)	: 188.2528	548.3091
Concentration fluc. intensity (%)	: 273.5144	138.2684
Skewness	: 3.411117	1.609746
Kurtosis	: 15.05224	4.858001

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2733
 Percentile: 65.78 70.83 79.28 85.67 89.00 96.11 97.78 98.11 99.39
 Conc. (ppt): 2 11 56 278 621 1388 2075 2437 2862



STATIONARY STATISTICS (T22B13)

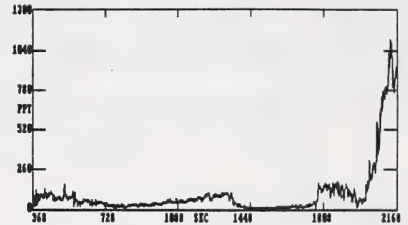
Scans : 368 to 2820
Date : 12-11-1988 Start Time : 20:52:58
Location: E5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1980 m, East 1631.1 m)
Transport from 252.04 deg
Power Law Cal. : ppt = 499.7 *(voltage)^ 1.1076

PERIOD # 1

Time : 20 : 58 : 58 to 21 : 28 : 57 (1800 s)
Maximum Concentration (ppt) : 1117
Peak (99 perc) to mean ratio : 10.01333
Plume intermittency : .9133334

	Total	Conditional
Mean Concentration (ppt)	94.56223	103.5353
Concentration fluc. intensity (%)	184.4169	173.7684
Skewness	3.837637	3.690626
Kurtosis	17.77849	16.42471

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 56 947
Percentile: 8.67 8.67 39.61 87.67 93.78 95.50 97.39 98.78 99.50
Conc. (ppt): 2 8 33 136 274 554 786 905 1041



STATIONARY STATISTICS (T22B16)

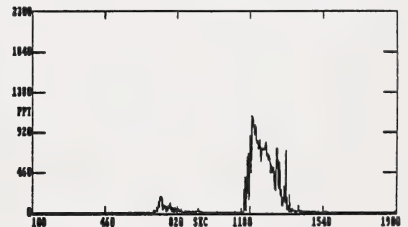
Scans : 101 to 5500
Date : 12-12-1988 Start Time : 04:29:41
Location: D5 on 700 m C Source : C Ground
Abs. Coordinates: (North 2159 m, East 1543.3 m)
Transport from 235.67 deg
Power Law Cal. : ppt = 499.7 *(voltage)^ 1.1076

PERIOD # 1

Time : 4 : 31 : 14 to 5 : 1 : 13 (1800 s)
Maximum Concentration (ppt) : 1109
Peak (99 perc) to mean ratio : 12.86637
Plume intermittency : .2661111

	Total	Conditional
Mean Concentration (ppt)	71.24555	267.7286
Concentration fluc. intensity (%)	279.3458	115.8743
Skewness	3.123616	.9783403
Kurtosis	11.94004	2.545826

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 56 917
Percentile: 73.39 73.39 82.56 88.11 90.72 93.67 97.83 98.89 99.72
Conc. (ppt): 2 8 33 135 273 550 781 899 1034

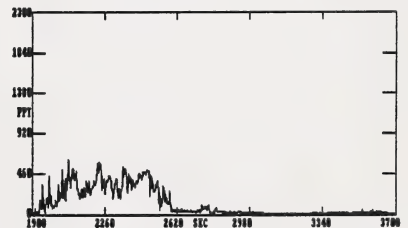


PERIOD # 2

Time : 5 : 1 : 14 to 5 : 31 : 13 (1800 s)
Maximum Concentration (ppt) : 612
Peak (99 perc) to mean ratio : 4.452835
Plume intermittency : .6561111

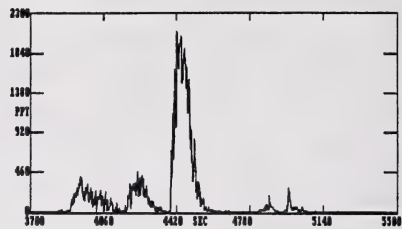
	Total	Conditional
Mean Concentration (ppt)	118.3133	180.3251
Concentration fluc. intensity (%)	135.3415	92.62457
Skewness	1.13073	.5398712
Kurtosis	2.818596	1.849454

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 24 527
Percentile: 34.39 34.39 50.22 65.56 70.11 83.11 94.72 98.61 99.83
Conc. (ppt): 2 7 25 89 170 322 444 505 574



PERIOD # 3

Time : 5 : 31 : 14 to 6 : 1 : 13 (1800 s)
 Maximum Concentration (ppt) : 2095
 Peak (99 perc) to mean ratio : 13.69449
 Plume intermittency : .4627778
 Total Conditional
 Mean Concentration (ppt) : 136.0656 294.0192
 Concentration fluc. intensity (%) : 258.778 160.0568
 Skewness : 3.820835 2.441609
 Kurtosis : 17.57056 7.924297
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1863
 Percentile: 53.72 53.78 66.89 84.28 93.33 95.44 96.56 97.72 99.50
 Conc. (ppt): 2 10 46 211 454 975 1429 1666 1941



STATIONARY STATISTICS (T22C04)

Scans : 101 to 9000

Date : 12-12-1988 Start Time : 03:59:27

Location: G0 on 700 m C Source : C Ground

Abs. Coordinates: (North 1491.1 m, East 1609.7 m)

Transport from 292.97 deg

Power Law Cal. : ppt = 702 *(voltage)^ .9517

PERIOD # 1

Time : 4 : 0 : 59 to 4 : 30 : 58 (1800 s)

Maximum Concentration (ppt) : 1057

Peak (99 perc) to mean ratio : 13.79948

Plume intermittency : .1922222

	Total	Conditional
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Mean Concentration (ppt)	62.70333	326.2023
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Concentration fluc. intensity (%)	299.2627	95.5892
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Skewness	3.228939	.5565305
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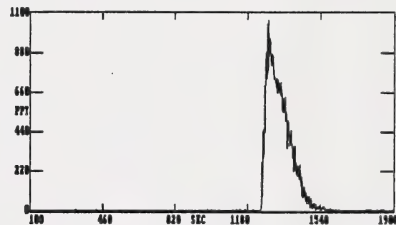
Kurtosis	12.5104	1.85346
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Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 865

Percentile: 80.78 81.94 86.11 89.00 91.06 94.11 97.67 98.94 99.89

Conc. (ppt): 2 8 33 131 263 527 746 858 986



Field Test 23
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 16:49 Dec 12 88
Test Stop Time: 08:22 Dec 13 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 3

Analyser B Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 7

Analyser C Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 2

STATIONARY STATISTICS (T23A12)

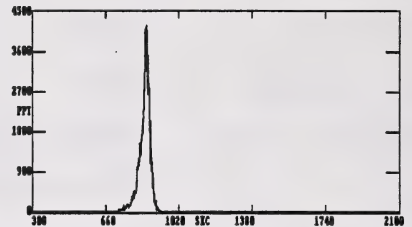
Scans : 300 to 10050
Date : 12-12-1988 Start Time : 19:09:08
Location: D8 on 700 m C Source : C Ground
Abs. Coordinates: (North 2108 m, East 1575 m)
Transport from 240.58 deg
Power Law Cal. : ppt = 1386.5 *(voltage)^ 1.735
For volt > .713 : ppt = 1086.5 *(voltage)^ 1.016

PERIOD # 1

Time : 19 : 14 : 0 to 19 : 43 : 59 (1800 s)
Maximum Concentration (ppt) : 4180
Peak (99 perc) to mean ratio : 28.87291
Plume intermittency : .1283333

	Total	Conditional
Mean Concentration (ppt)	104.075	810.974
Concentration fluc. intensity (%)	464.6006	137.7845
Skewness	5.946919	1.60935
Kurtosis	41.10965	4.597514

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 3005
Percentile: 87.56 88.61 90.67 94.17 95.78 97.94 98.78 99.22 99.50
Conc. (ppt): 2 12 65 343 789 1816 2755 3255 3846

**STATIONARY STATISTICS (T23A19)**

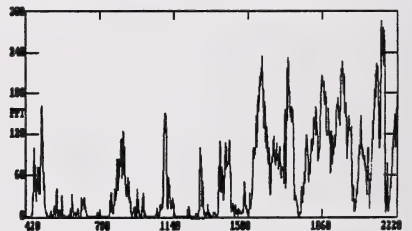
Scans : 420 to 4290
Date : 12-13-1988 Start Time : 07:13:40
Location: I0 on 700 m C Source : C Ground
Abs. Coordinates: (North 1185.9 m, East 1359.6 m)
Transport from 325.71 deg
Power Law Cal. : ppt = 1386.5 *(voltage)^ 1.735
For volt > .713 : ppt = 1086.5 *(voltage)^ 1.016

PERIOD # 1

Time : 7 : 20 : 32 to 7 : 50 : 31 (1800 s)
Maximum Concentration (ppt) : 287
Peak (99 perc) to mean ratio : 4.298021
Plume intermittency : .795

	Total	Conditional
Mean Concentration (ppt)	54.46333	68.50734
Concentration fluc. intensity (%)	115.3746	92.37139
Skewness	1.122703	.8703309
Kurtosis	3.404202	2.950961

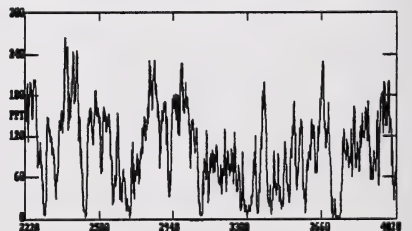
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 29 234
Percentile: 21.33 32.56 44.83 60.56 74.06 92.39 98.39 99.28 99.78
Conc. (ppt): 2 5 17 53 93 163 216 242 271

**PERIOD # 2**

Time : 7 : 50 : 32 to 8 : 20 : 31 (1800 s)
Maximum Concentration (ppt) : 264
Peak (99 perc) to mean ratio : 2.351614
Plume intermittency : .9911111

	Total	Conditional
Mean Concentration (ppt)	101.115	102.0219
Concentration fluc. intensity (%)	57.10557	56.06398
Skewness	.1762637	.1849534
Kurtosis	2.286443	2.295264

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 99 238
Percentile: 0.89 2.94 8.11 21.67 43.33 79.17 95.72 98.06 99.78
Conc. (ppt): 2 5 16 50 87 151 200 223 250



STATIONARY STATISTICS (T23B02)

Scans : 50 to 5550
Date : 12-12-1988 Start Time : 17:10:27
Location: F3 on 700 m C Source : C Ground
Abs. Coordinates: (North 1823.5 m, East 1662.7 m)
Transport from 265.14 deg
Power Law Cal. : ppt = 507.5 *(voltage)^ 1.089

PERIOD # 1

Time : 17 : 11 : 9 to 17 : 41 : 8 (1800 s)

Maximum Concentration (ppt) : 150

Peak (99 perc) to mean ratio : 10.92178

Plume intermittency : .245

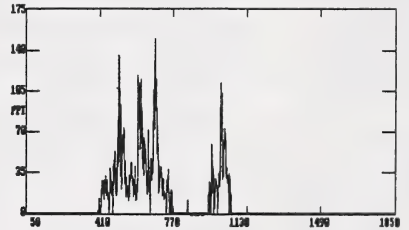
	Total	Conditional
Mean Concentration (ppt)	9.562222	39.02948
Concentration fluc. intensity (%)	224.3065	69.11427
Skewness	2.915444	1.538876
Kurtosis	12.50049	5.038517

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 104

Percentile: 75.50 75.50 76.22 89.83 94.72 98.39 99.56 99.72 99.89

Conc. (ppt): 2 4 12 33 55 91 117 129 143



STATIONARY STATISTICS (T23B03)

Scans : 50 to 13550
Date : 12-12-1988 Start Time : 19:04:55
Location: C3 on 700 m C Source : C Ground
Abs. Coordinates: (North 2330.3 m, East 1376.9 m)
Transport from 216.03 deg
Power Law Cal. : ppt = 507.5 *(voltage)^ 1.089

PERIOD # 1

Time : 19 : 5 : 37 to 19 : 35 : 36 (1800 s)

Maximum Concentration (ppt) : 1848

Peak (99 perc) to mean ratio : 6.88881

Plume intermittency : .3461111

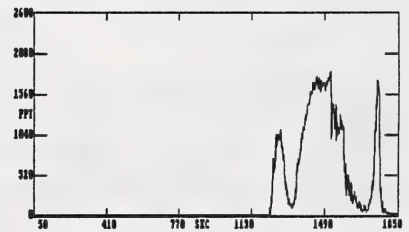
	Total	Conditional
Mean Concentration (ppt)	259.9305	751.0032
Concentration fluc. intensity (%)	195.9675	82.17606
Skewness	1.894251	.327581
Kurtosis	5.146989	1.599669

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 1791

Percentile: 65.39 65.39 68.56 75.44 80.56 84.94 91.28 93.33 97.67

Conc. (ppt): 2 10 43 194 411 871 1269 1475 1714

**PERIOD # 2**

Time : 19 : 35 : 37 to 20 : 5 : 36 (1800 s)

Maximum Concentration (ppt) : 1058

Peak (99 perc) to mean ratio : 7.178198

Plume intermittency : .3522222

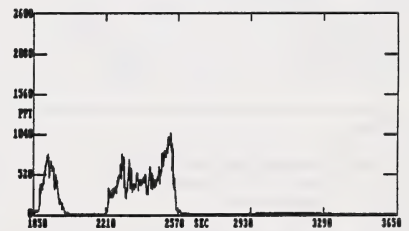
	Total	Conditional
Mean Concentration (ppt)	123.7261	351.2729
Concentration fluc. intensity (%)	185.4549	75.0759
Skewness	1.803066	.3308902
Kurtosis	5.287082	2.350627

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 888

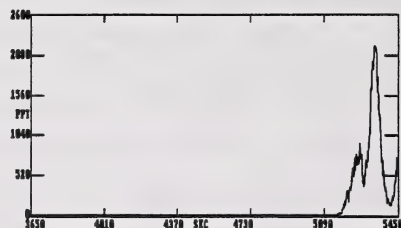
Percentile: 64.78 64.78 72.00 75.00 77.22 91.67 96.83 98.83 99.56

Conc. (ppt): 2 8 33 131 263 527 747 859 987

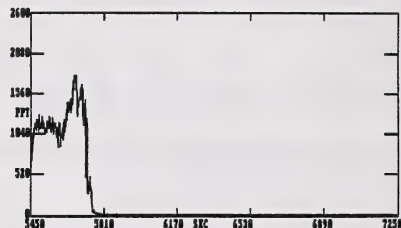


PERIOD # 3

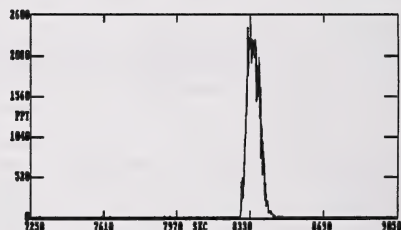
Time : 20 : 5 : 37 to 20 : 35 : 36 (1800 s)
 Maximum Concentration (ppt) : 2196
 Peak (99 perc) to mean ratio : 18.18609
 Plume intermittency : .1627778
 Total Conditional
 Mean Concentration (ppt) : 108.6194 667.2867
 Concentration fluc. intensity (%) : 313.3467 87.23702
 Skewness : 4.059449 1.254937
 Kurtosis : 20.79944 3.734188
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1975
 Percentile: 83.72 83.72 85.00 87.83 91.22 96.83 97.83 98.56 99.11
 Conc. (ppt): 2 10 47 218 471 1017 1495 1743 2033

**PERIOD # 4**

Time : 20 : 35 : 37 to 21 : 5 : 36 (1800 s)
 Maximum Concentration (ppt) : 1787
 Peak (99 perc) to mean ratio : 8.45443
 Plume intermittency : .185
 Total Conditional
 Mean Concentration (ppt) : 193.6389 1046.697
 Concentration fluc. intensity (%) : 232.71 43.22586
 Skewness : 2.05644 -1.030575
 Kurtosis : 5.58605 3.369523
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1637
 Percentile: 81.50 81.50 82.78 83.33 84.22 85.00 94.61 96.78 99.22
 Conc. (ppt): 2 9 42 189 400 845 1229 1427 1658

**PERIOD # 5**

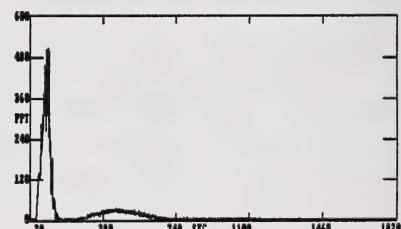
Time : 21 : 5 : 37 to 21 : 35 : 36 (1800 s)
 Maximum Concentration (ppt) : 2501
 Peak (99 perc) to mean ratio : 22.09982
 Plume intermittency : 9.611111E-02
 Total Conditional
 Mean Concentration (ppt) : 100.2628 1043.197
 Concentration fluc. intensity (%) : 409.6819 84.21594
 Skewness : 4.397154 .2336703
 Kurtosis : 21.47215 1.431911
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2216
 Percentile: 90.39 90.39 91.61 93.33 94.39 95.72 96.83 97.50 99.61
 Conc. (ppt): 2 10 50 239 523 1144 1691 1978 2313

**STATIONARY STATISTICS (T23B05)**

Scans : 20 to 3000
 Date : 12-12-1988 Start Time : 23:28:52
 Location: V5 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2454.3 m, East 847.7 m)
 Transport from 170.34 deg
 Power Law Cal. : ppt = 507.5 *(voltage)^ 1.089

PERIOD # 1

Time : 23 : 29 : 4 to 23 : 59 : 3 (1800 s)
 Maximum Concentration (ppt) : 507
 Peak (99 perc) to mean ratio : 27.4385
 Plume intermittency : .13
 Total Conditional
 Mean Concentration (ppt) : 13.29167 102.2436
 Concentration fluc. intensity (%) : 439.0907 127.9222
 Skewness : 5.849444 1.649632
 Kurtosis : 39.2799 4.50158
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 365
 Percentile: 87.00 87.00 87.72 95.94 97.00 98.22 99.06 99.33 99.67
 Conc. (ppt): 2 6 23 78 146 272 371 421 476



STATIONARY STATISTICS (T23C05)

Scans : 130 to 5300
Date : 12-12-1988 Start Time : 22:45:32
Location: A5 on 700 m C Source : C Ground
Abs. Coordinates: (North 2459.6 m, East 1045.2 m)
Transport from 186.56 deg
Power Law Cal. : ppt = 968.8 *(voltage)^ .897

PERIOD # 1

Time : 22 : 47 : 33 to 23 : 17 : 32 (1800 s)

Maximum Concentration (ppt) : 959
Peak (99 perc) to mean ratio : 8.402822
Plume intermittency : .2111111

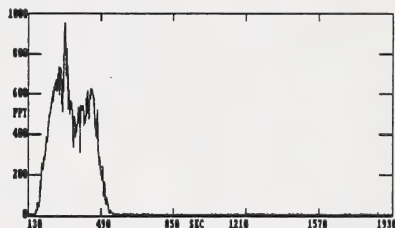
	Total	Conditional
Mean Concentration (ppt)	89.63333	424.5789
Concentration fluc. intensity (%)	224.9274	52.83671
Skewness	2.108321	-.3201011
Kurtosis	6.115073	2.366053

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 753

Percentile: 78.89 78.89 80.28 82.17 83.94 89.67 98.11 99.33 99.61

Conc. (ppt): 2 8 31 122 243 483 680 780 895



STATIONARY STATISTICS (T23C07)

Scans : 120 to 2200
Date : 12-13-1988 Start Time : 07:46:11
Location: I8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1209.4 m, East 1392 m)
Transport from 322.44 deg
Power Law Cal. : ppt = 968.8 *(voltage)^ .897

PERIOD # 1

Time : 7 : 48 : 2 to 8 : 18 : 1 (1800 s)

Maximum Concentration (ppt) : 301
Peak (99 perc) to mean ratio : 3.535973
Plume intermittency : .6638889

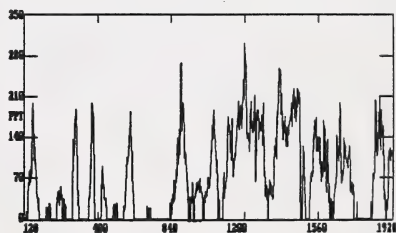
	Total	Conditional
Mean Concentration (ppt)	68.635	103.3833
Concentration fluc. intensity (%)	101.0389	58.45036
Skewness	.6952125	.4093447
Kurtosis	2.355418	2.276591

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 48 243

Percentile: 33.61 33.61 34.44 52.94 65.83 88.89 98.83 99.11 99.89

Conc. (ppt): 2 6 17 54 96 170 226 254 284



Field Test 24
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 16:51 Dec 13 88
Test Stop Time: 08:15 Dec 14 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 8

Analyser B Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 10

Analyser C Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 15

STATIONARY STATISTICS (T24A06)

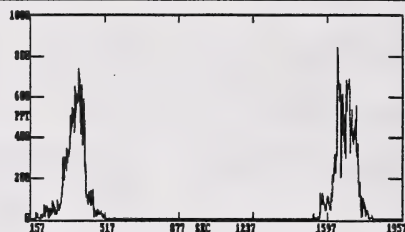
Scans : 157 to 1957
 Date : 12-13-1988 Start Time : 17:29:59
 Location: I4 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1261.6 m, East 1452.4 m)
 Transport from 315.89 deg
 Power Law Cal. : ppt = 1260.78 *(voltage)^ 1.9246
 For volt > .8184 : ppt = 1049.99 *(voltage)^ 1.0117

PERIOD # 1

Time : 17 : 32 : 28 to 18 : 2 : 27 (1800 s)
 Maximum Concentration (ppt) : 841
 Peak (99 perc) to mean ratio : 9.369282
 Plume intermittency : .3838889

	Total	Conditional
Mean Concentration (ppt)	70.16389	182.7713
Concentration fluc. intensity (%)	225.7507	115.772
Skewness	2.512847	1.056938
Kurtosis	8.354138	2.784191

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 657
 Percentile: 63.83 68.39 73.89 84.39 87.39 92.72 97.83 99.61 99.83
 Conc. (ppt): 2 8 29 112 219 429 601 687 786

**STATIONARY STATISTICS (T24A08)**

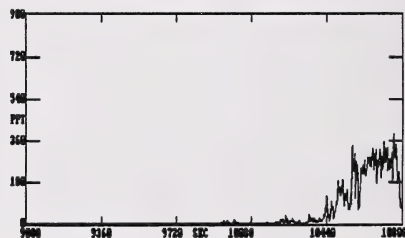
Scans : 1801 to 16100
 Date : 12-13-1988 Start Time : 21:04:36
 Location: I4 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1261.6 m, East 1452.4 m)
 Transport from 315.89 deg
 Power Law Cal. : ppt = 1260.78 *(voltage)^ 1.9246
 For volt > .8184 : ppt = 1049.99 *(voltage)^ 1.0117

PERIOD # 5

Time : 23 : 34 : 29 to 0 : 4 : 28 (1800 s)
 Maximum Concentration (ppt) : 389
 Peak (99 perc) to mean ratio : 7.844415
 Plume intermittency : .4

	Total	Conditional
Mean Concentration (ppt)	41.18611	102.9653
Concentration fluc. intensity (%)	215.563	112.1917
Skewness	2.140676	.7400906
Kurtosis	6.153599	1.962069

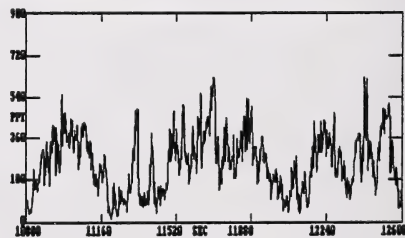
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 323
 Percentile: 63.83 70.06 78.11 81.78 85.56 89.56 96.39 99.17 99.78
 Conc. (ppt): 2 6 20 65 118 214 289 325 366

**PERIOD # 6**

Time : 0 : 4 : 29 to 0 : 34 : 28 (1800 s)
 Maximum Concentration (ppt) : 625
 Peak (99 perc) to mean ratio : 2.229053
 Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	255.3439	255.3439
Concentration fluc. intensity (%)	49.25412	49.25412
Skewness	.215653	.215653
Kurtosis	2.44367	2.44367

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 250 569
 Percentile: 0.00 0.00 0.39 10.72 29.56 70.44 94.28 98.11 99.28
 Conc. (ppt): 2 7 25 91 172 328 453 515 586



```

Time: 0 : 34 : 29 to 1 : 4 : 28 (1800 s)
Maximum Concentration (ppt) : 868
Peak (99 perc) to mean ratio : 3.736272
Plume intermittency : .9916667

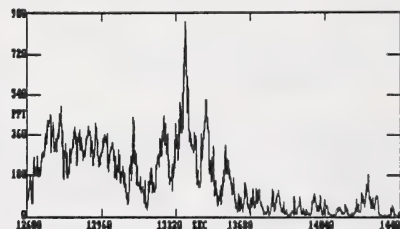
```

	Total	Conditional
Mean Concentration (ppt)	162.5689	163.935
Concentration fluc. intensity (%)	89.57912	88.73679
Skewness	.897979	.8920237
Kurtosis	3.633102	3.632337

```

Percentile:      50      99      (Interpolated)
Conc. (ppt) :    121     607
Percentile:      2.72    8.39  22.94  48.89  65.94  97.39  99.11  99.61  99.94
Conc. (ppt):      2      8    29    114    224    441    619    709    811

```



STATIONARY STATISTICS (T24A11)

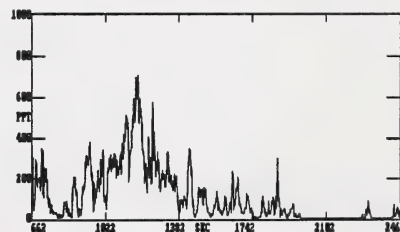
```
Scans : 662 to 7861
Date : 12-14-1988      Start Time : 02:29:11
Location: I8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1209.4 m, East 1392 m)
Transport from 322.44 deg
Power Law Cal. : ppt = 1260.78 *(voltage)^ 1.92446
For volt > .8184 : ppt = 1049.99 *(voltage)^ 1.0117
```

PERIOD # 1

```

Time : 2 : 40 : 5 to 3 : 10 : 4 ( 1800 s )
Maximum Concentration (ppt) : 704
Peak (99 perc) to mean ratio : 5.178304
Plume intermittency : .8122222
                                Total      Conditional
Mean Concentration (ppt) : 111.6756 137.4939
Concentration fluc. intensity (%) : 121.6712 100.7287
Skewness : 1.567928 1.37845
Kurtosis : 5.321063 4.734453
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 62 578
Percentile: 21.33 25.11 37.44 62.67 76.00 94.94 97.72 99.00 99.61
Conc. (ppt): 2 7 27 98 190 365 507 578 659

```

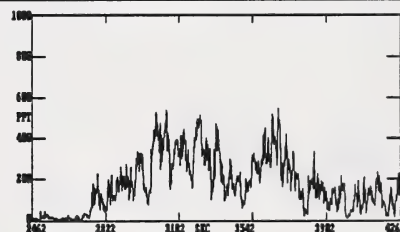


PERIOD # 2

```

# 2
Time: 3 : 10 : 5 to 3 : 40 : 4 ( 1800 s )
Maximum Concentration (ppt) : 543
Peak (99 perc) to mean ratio : 2.858372
Plume intermittency : .9966667
                                      Total      
Mean Concentration (ppt) : 175.1272 175.7129
Concentration fluc. intensity (%) : 75.58135 75.23407
Skewness : .5733267 .5719181
Kurtosis : 2.488493 2.488941
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 156 501
Percentile: 3.39 8.44 16.39 28.06 49.61 78.94 92.56 96.56 99.44
Conc. (ppt): 2 7 23 82 154 289 396 450 510

```

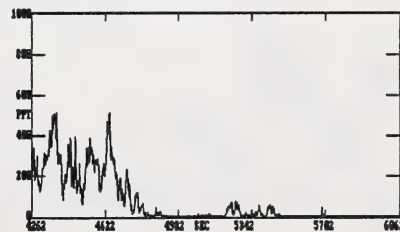


PERIOD # 3

```

Time: 3 : 40 : 5 to 4 : 10 : 4 ( 1800 s )
Maximum Concentration (ppt) : 513
Peak (99 perc) to mean ratio : 6.60703
Plume intermittency : .622222
                                Total      Conditional
Mean Concentration (ppt) : 71.45889 114.8446
Concentration fluc. intensity (%) : 165.9314 115.5595
Skewness : 1.691834 1.01827
Kurtosis : 4.912659 2.99544
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 4 472
Percentile: 45.44 55.56 64.28 72.67 78.50 90.39 96.94 97.94 99.22
Conc. (ppt): 2 7 23 79 147 275 376 425 482

```



PERIOD # 4

Time : 4 : 10 : 5 to 4 : 40 : 4 (1800 s)

Maximum Concentration (ppt) : 378

Peak (99 perc) to mean ratio : 4.15493

Plume intermittency : .4916667

	Total	Conditional
Mean Concentration (ppt)	76.13834	154.8576
Concentration fluc. intensity (%)	135.9925	63.32084
Skewness	.9209543	-.2363748
Kurtosis	2.284801	1.878408

Mean Concentration (ppt) : 76.13834 154.8576

Concentration fluc. intensity (%) : 135.9925 63.32084

Skewness : .9209543 -.2363748

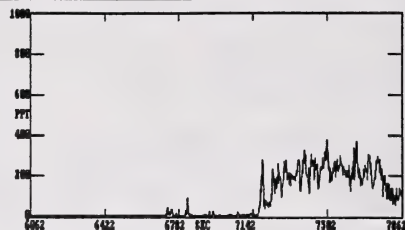
Kurtosis : 2.284801 1.878408

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 316

Percentile: 50.83 55.11 60.17 63.61 67.39 82.06 96.22 99.00 99.67

Conc. (ppt): 2 6 19 64 115 209 281 316 356



STATIONARY STATISTICS (T24B02)

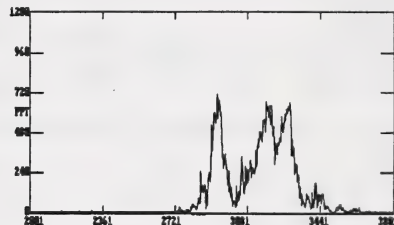
Scans : 201 to 12800
Date : 12-13-1988 Start Time : 17:29:59
Location: J5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1135.6 m, East 1273.2 m)
Transport from 333.9 deg
Power Law Cal. : ppt = 522.6406 *(voltage)^ 1.0645

PERIOD # 2

Time : 18 : 3 : 12 to 18 : 33 : 11 (1800 s)
Maximum Concentration (ppt) : 709
Peak (99 perc) to mean ratio : 6.24017
Plume intermittency : .4727778

	Total	Conditional
Mean Concentration (ppt)	104.5033	221.0411
Concentration fluc. intensity (%)	173.8053	94.91883
Skewness	1.769862	.7288395
Kurtosis	4.853694	2.131846

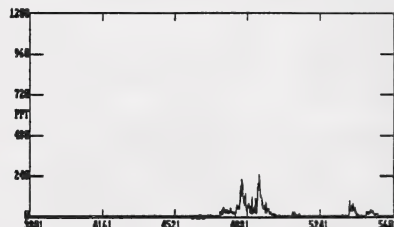
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 652
Percentile: 52.72 53.33 62.06 73.17 79.17 87.28 92.67 95.72 99.56
Conc. (ppt): 2 7 27 99 191 368 511 582 664

**PERIOD # 3**

Time : 18 : 33 : 12 to 19 : 3 : 11 (1800 s)
Maximum Concentration (ppt) : 245
Peak (99 perc) to mean ratio : 15.99262
Plume intermittency : .2266667

	Total	Conditional
Mean Concentration (ppt)	10.06167	44.38971
Concentration fluc. intensity (%)	281.3249	101.0242
Skewness	4.285117	2.04787
Kurtosis	24.40158	6.950453

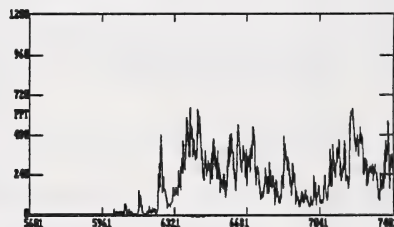
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 161
Percentile: 77.33 77.33 82.89 93.28 96.78 98.61 99.50 99.78 99.94
Conc. (ppt): 2 5 16 47 82 141 186 208 232

**PERIOD # 4**

Time : 19 : 3 : 12 to 19 : 33 : 11 (1800 s)
Maximum Concentration (ppt) : 645
Peak (99 perc) to mean ratio : 3.470033
Plume intermittency : .7255555

	Total	Conditional
Mean Concentration (ppt)	168.0656	231.6371
Concentration fluc. intensity (%)	96.17095	62.97707
Skewness	.6574044	.4207165
Kurtosis	2.453087	2.520011

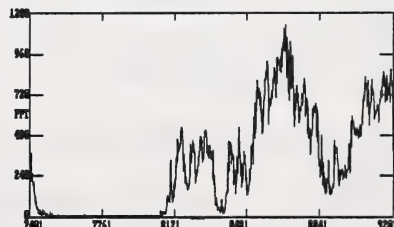
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 139 583
Percentile: 27.44 27.44 33.44 42.22 56.33 82.83 95.00 98.06 99.39
Conc. (ppt): 2 7 25 93 177 338 467 531 605

**PERIOD # 5**

Time : 19 : 33 : 12 to 20 : 3 : 11 (1800 s)
Maximum Concentration (ppt) : 1131
Peak (99 perc) to mean ratio : 3.411555
Plume intermittency : .6866667

	Total	Conditional
Mean Concentration (ppt)	298.8783	435.2597
Concentration fluc. intensity (%)	101.2119	62.4562
Skewness	.6333072	.2458899
Kurtosis	2.164526	2.099457

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 223 1020
Percentile: 31.33 31.67 36.06 42.00 55.06 76.06 93.06 97.17 99.61
Conc. (ppt): 2 8 34 137 277 560 796 916 1054

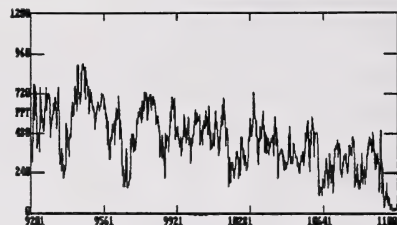


PERIOD # 6

Time : 20 : 3 : 12 to 20 : 33 : 11 (1800 s)
 Maximum Concentration (ppt) : 897
 Peak (99 perc) to mean ratio : 1.925995
 Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	438.1817	438.1817
Concentration fluc. intensity (%)	40.29191	40.29191
Skewness	-5.773279E-02	-5.773279E-02
Kurtosis	2.650429	2.650429

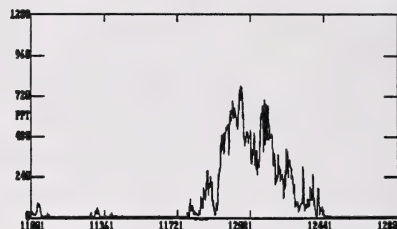
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 430 844
 Percentile: 0.00 0.00 1.56 3.72 11.44 54.83 85.56 96.78 98.89
 Conc. (ppt): 2 8 30 117 230 454 638 731 838

**PERIOD # 7**

Time : 20 : 33 : 12 to 21 : 3 : 11 (1800 s)
 Maximum Concentration (ppt) : 780
 Peak (99 perc) to mean ratio : 6.61079
 Plume intermittency : .4438889

	Total	Conditional
Mean Concentration (ppt)	107.4678	242.1051
Concentration fluc. intensity (%)	175.1578	89.76365
Skewness	1.75862	.6296834
Kurtosis	4.867918	2.087199

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 710
 Percentile: 55.61 55.61 63.89 74.17 79.22 88.06 95.00 97.56 99.39
 Conc. (ppt): 2 7 28 106 206 401 559 639 730

**STATIONARY STATISTICS (T24B14)**

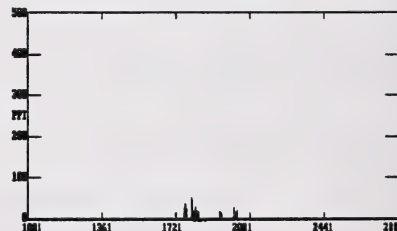
Scans : 1001 to 10000
 Date : 12-14-1988 Start Time : 02:34:55
 Location: J4 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1144.7 m, East 1291 m)
 Transport from 332.26 deg
 Power Law Cal. : ppt = 522.6406 *(voltage)^ 1.0645

PERIOD # 1

Time : 2 : 51 : 28 to 3 : 21 : 27 (1800 s)
 Maximum Concentration (ppt) : 51
 Peak (99 perc) to mean ratio : 42.27448
 Plume intermittency : 2.222222E-02

	Total	Conditional
Mean Concentration (ppt)	.4644445	20.9
Concentration fluc. intensity (%)	713.6318	39.23445
Skewness	8.435264	2.119224
Kurtosis	87.06902	7.608169

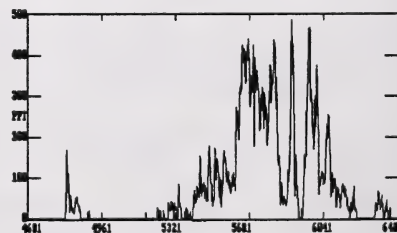
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 20
 Percentile: 97.78 97.78 97.78 98.39 99.56 99.83 99.89 99.89 99.94
 Conc. (ppt): 1 3 7 16 23 34 42 45 49

**PERIOD # 3**

Time : 3 : 51 : 28 to 4 : 21 : 27 (1800 s)
 Maximum Concentration (ppt) : 486
 Peak (99 perc) to mean ratio : 5.670981
 Plume intermittency : .5672222

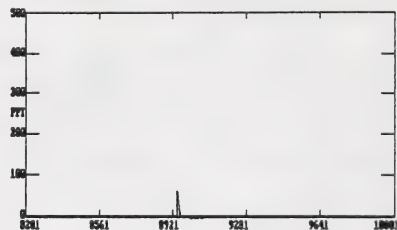
	Total	Conditional
Mean Concentration (ppt)	77.14944	136.0127
Concentration fluc. intensity (%)	149.1487	91.05093
Skewness	1.654261	.9905913
Kurtosis	4.63714	2.688371

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 23 438
 Percentile: 43.28 43.28 49.78 69.72 80.28 88.22 95.61 97.83 99.67
 Conc. (ppt): 2 6 22 76 141 262 357 404 457



PERIOD # 5

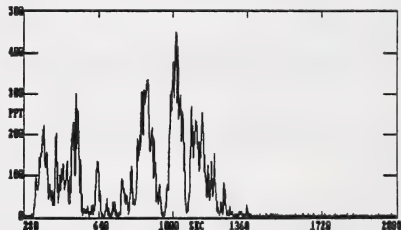
Time : 4 : 51 : 28 to 5 : 21 : 27 (1800 s)
 Maximum Concentration (ppt) : 60
 Peak (99 perc) to mean ratio : 5042.174
 Plume intermittency : 6.666667E-03
 Total Conditional
 Mean Concentration (ppt) : .2022222 30.33333
 Concentration fluc. intensity (%) : 1326.61 42.41814
 Skewness : 15.23284 .7643686
 Kurtosis : 259.6306 3.088343
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 223 1020
 Percentile: 99.33 99.33 99.33 99.33 99.44 99.61 99.89 99.94 99.94 99.94
 Conc. (ppt): 2 3 8 18 26 40 49 53 58

**STATIONARY STATISTICS (T24B18)**

Scans : 281 to 2080
 Date : 12-14-1988 Start Time : 07:12:03
 Location: I9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1197.4 m, East 1375.9 m)
 Transport from 324.07 deg
 Power Law Cal. : ppt = 522.6404 *(voltage)^ 1.0645

PERIOD # 1

Time : 7 : 16 : 36 to 7 : 46 : 35 (1800 s)
 Maximum Concentration (ppt) : 450
 Peak (99 perc) to mean ratio : 6.549132
 Plume intermittency : .4772222
 Total Conditional
 Mean Concentration (ppt) : 55.01167 115.2747
 Concentration fluc. intensity (%) : 158.5286 82.25232
 Skewness : 1.833751 1.040218
 Kurtosis : 5.896961 3.487433
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 360
 Percentile: 52.28 52.28 59.44 73.22 83.22 94.61 98.67 99.17 99.83
 Conc. (ppt): 2 6 21 72 133 244 332 375 423



STATIONARY STATISTICS (T24C04)

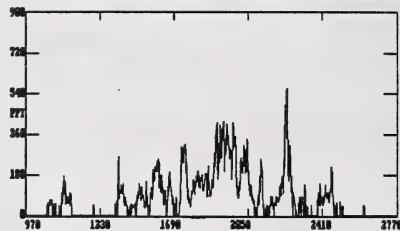
Scans : 970 to 31460
Date : 12-13-1988 Start Time : 22:00:46
Location: J1 on 700 m C Source : C Ground
Abs. Coordinates: (North 1174.9 m, East 1342.9 m)
Transport from 327.35 deg
Power Law Cal. : ppt = 987.5606 *(voltage)^ .8549

PERIOD # 1

Time : 22 : 16 : 47 to 22 : 46 : 46 (1800 s)
Maximum Concentration (ppt) : 561
Peak (99 perc) to mean ratio : 5.170252
Plume intermittency : .5594444

	Total	Conditional
Mean Concentration (ppt)	77.23722	138.0606
Concentration fluc. intensity (%)	129.2098	70.24579
Skewness	1.526899	1.243708
Kurtosis	5.02284	4.116048

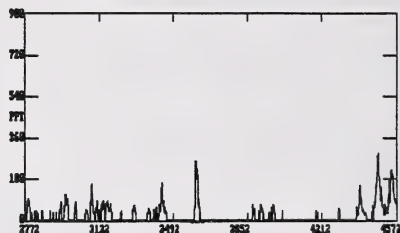
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 40 399
Percentile: 44.06 44.06 44.06 65.44 82.22 94.83 99.39 99.72 99.83
Conc. (ppt): 2 7 24 84 158 298 409 464 527

**PERIOD # 2**

Time : 22 : 46 : 47 to 23 : 16 : 46 (1800 s)
Maximum Concentration (ppt) : 291
Peak (99 perc) to mean ratio : 10.14704
Plume intermittency : .2972222

	Total	Conditional
Mean Concentration (ppt)	20.36444	68.51588
Concentration fluc. intensity (%)	205.5259	74.34486
Skewness	2.968284	2.010661
Kurtosis	13.4898	6.864923

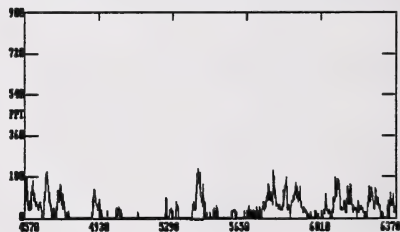
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 207
Percentile: 70.28 70.28 70.28 86.17 94.50 97.89 99.33 99.56 99.83
Conc. (ppt): 2 5 17 53 94 165 219 245 275

**PERIOD # 3**

Time : 23 : 16 : 47 to 23 : 46 : 46 (1800 s)
Maximum Concentration (ppt) : 213
Peak (99 perc) to mean ratio : 5.183285
Plume intermittency : .5294445

	Total	Conditional
Mean Concentration (ppt)	34.19778	64.59181
Concentration fluc. intensity (%)	128.496	63.53126
Skewness	1.412811	1.162727
Kurtosis	4.527209	3.777546

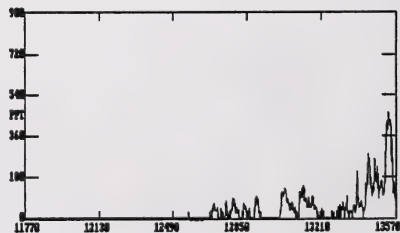
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 18 177
Percentile: 47.06 47.06 47.06 68.72 82.50 94.33 98.22 99.22 99.78
Conc. (ppt): 2 5 15 43 73 125 163 181 202

**PERIOD # 7**

Time : 1 : 16 : 47 to 1 : 46 : 46 (1800 s)
Maximum Concentration (ppt) : 463
Peak (99 perc) to mean ratio : 12.9218
Plume intermittency : .3372222

	Total	Conditional
Mean Concentration (ppt)	30.535	90.5486
Concentration fluc. intensity (%)	218.7206	97.49103
Skewness	3.582018	2.327386
Kurtosis	18.57632	8.703353

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 395
Percentile: 66.28 66.28 67.44 86.33 93.72 98.06 98.56 98.83 99.72
Conc. (ppt): 2 6 22 73 136 251 341 385 435

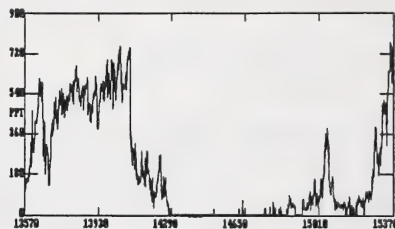


PERIOD # 8

Time : 1 : 46 : 47 to 2 : 16 : 46 (1800 s)
 Maximum Concentration (ppt) : 769
 Peak (99 perc) to mean ratio : 3.626033
 Plume intermittency : .6622222

	Total	Conditional
Mean Concentration (ppt)	198.4428	299.6619
Concentration fluc. intensity (%)	116.0798	74.46705
Skewness	.8244696	.2740902
Kurtosis	2.149292	1.592108

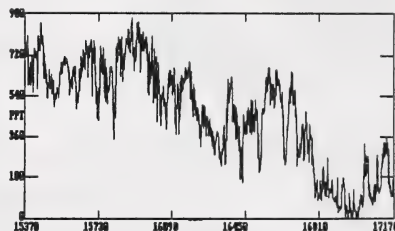
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 87 720
 Percentile: 33.78 33.78 36.89 53.89 63.56 74.00 87.61 95.61 99.00
 Conc. (ppt): 2 7 28 105 204 396 552 630 720

**PERIOD # 9**

Time : 2 : 16 : 47 to 2 : 46 : 46 (1800 s)
 Maximum Concentration (ppt) : 882
 Peak (99 perc) to mean ratio : 1.781312
 Plume intermittency : .9916667

	Total	Conditional
Mean Concentration (ppt)	462.6728	466.5608
Concentration fluc. intensity (%)	48.85982	47.79178
Skewness	-.4067088	-.4046177
Kurtosis	2.080368	2.086928

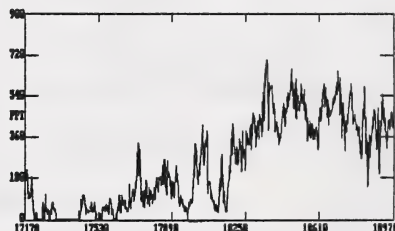
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 498 824
 Percentile: 0.83 0.83 1.89 11.44 19.33 41.39 72.56 86.67 99.00
 Conc. (ppt): 2 8 30 115 227 448 628 720 824

**PERIOD # 10**

Time : 2 : 46 : 47 to 3 : 16 : 46 (1800 s)
 Maximum Concentration (ppt) : 698
 Peak (99 perc) to mean ratio : 2.675926
 Plume intermittency : .8938889

	Total	Conditional
Mean Concentration (ppt)	240.1744	268.6849
Concentration fluc. intensity (%)	80.59042	68.88055
Skewness	.3114718	.1922407
Kurtosis	1.683868	1.655655

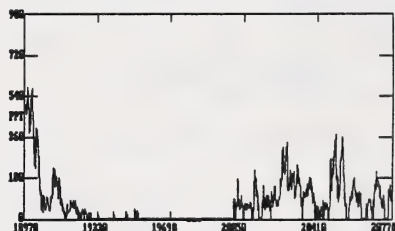
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 194 643
 Percentile: 10.61 10.61 12.78 36.17 49.44 65.89 88.61 96.22 99.44
 Conc. (ppt): 2 7 26 98 188 363 503 574 654

**PERIOD # 11**

Time : 3 : 16 : 47 to 3 : 46 : 46 (1800 s)
 Maximum Concentration (ppt) : 578
 Peak (99 perc) to mean ratio : 7.377465
 Plume intermittency : .5388889

	Total	Conditional
Mean Concentration (ppt)	68.64111	127.3753
Concentration fluc. intensity (%)	149.7634	86.46199
Skewness	2.30589	1.93558
Kurtosis	9.114206	6.794239

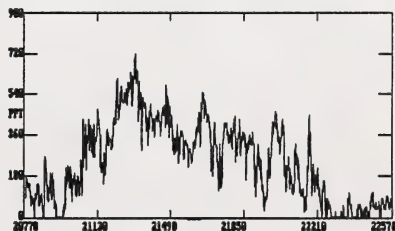
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 29 506
 Percentile: 46.11 46.11 48.22 71.72 86.67 95.67 97.89 98.56 99.56
 Conc. (ppt): 2 7 24 86 162 306 421 478 542

**PERIOD # 12**

Time : 3 : 46 : 47 to 4 : 16 : 46 (1800 s)
 Maximum Concentration (ppt) : 721
 Peak (99 perc) to mean ratio : 2.635992
 Plume intermittency : .8977778

	Total	Conditional
Mean Concentration (ppt)	242.5661	270.185
Concentration fluc. intensity (%)	70.77536	58.94813
Skewness	.2337956	.2029263
Kurtosis	2.028563	2.115665

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 229 639
 Percentile: 10.22 10.22 11.33 28.50 43.78 75.00 94.56 98.11 99.67
 Conc. (ppt): 2 7 27 100 193 373 519 592 675

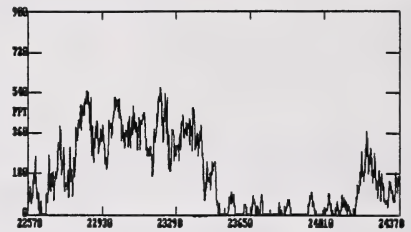


PERIOD # 13

Time : 4 : 16 : 47 to 4 : 46 : 46 (1800 s)
 Maximum Concentration (ppt) : 560
 Peak (99 perc) to mean ratio : 2.958215
 Plume intermittency : .7677778

	Total	Conditional
Mean Concentration (ppt)	176.0706	229.3249
Concentration fluc. intensity (%)	93.32835	66.07013
Skewness	.4948852	.1990065
Kurtosis	1.852738	1.750659

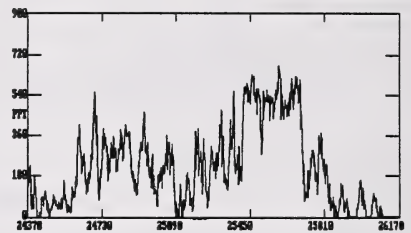
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 133 521
 Percentile: 23.22 23.22 26.17 42.89 53.72 71.00 89.11 95.00 99.33
 Conc. (ppt): 2 7 24 84 158 297 408 463 526

**PERIOD # 14**

Time : 4 : 46 : 47 to 5 : 16 : 46 (1800 s)
 Maximum Concentration (ppt) : 672
 Peak (99 perc) to mean ratio : 2.860036
 Plume intermittency : .8905556

	Total	Conditional
Mean Concentration (ppt)	217.5305	244.2639
Concentration fluc. intensity (%)	81.55477	69.48956
Skewness	.6450758	.6093035
Kurtosis	2.36618	2.30584

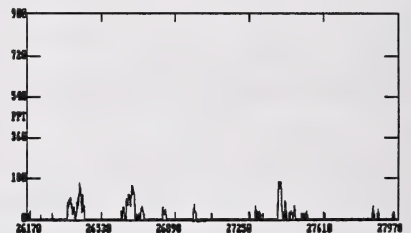
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 186 622
 Percentile: 10.94 10.94 13.22 32.72 49.44 77.78 86.50 94.89 99.44
 Conc. (ppt): 2 7 26 95 183 350 485 553 630

**PERIOD # 15**

Time : 5 : 16 : 47 to 5 : 46 : 46 (1800 s)
 Maximum Concentration (ppt) : 165
 Peak (99 perc) to mean ratio : 14.26868
 Plume intermittency : .1822222

	Total	Conditional
Mean Concentration (ppt)	9.814445	53.85976
Concentration fluc. intensity (%)	269.9683	71.43602
Skewness	3.411141	1.253499
Kurtosis	15.32496	3.575467

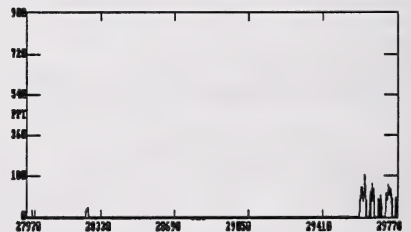
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 140
 Percentile: 81.78 81.78 81.78 90.56 94.17 97.28 98.56 99.06 99.61
 Conc. (ppt): 2 5 13 36 59 99 128 142 157

**PERIOD # 16**

Time : 5 : 46 : 47 to 6 : 16 : 46 (1800 s)
 Maximum Concentration (ppt) : 186
 Peak (99 perc) to mean ratio : 22.44268
 Plume intermittency : 6.333333E-02

	Total	Conditional
Mean Concentration (ppt)	5.648334	89.18421
Concentration fluc. intensity (%)	411.7036	36.99091
Skewness	4.296591	2.648398E-03
Kurtosis	21.30579	3.430691

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 127
 Percentile: 93.67 93.67 93.67 94.50 94.50 98.28 99.72 99.83 99.89
 Conc. (ppt): 2 5 14 39 65 110 143 159 177



STATIONARY STATISTICS (T24C05)

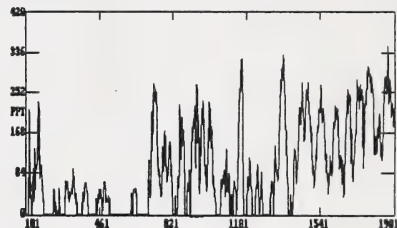
Scans : 101 to 3700
Date : 12-14-1988 Start Time : 06:49:53
Location: J1 on 700 m C Source : C Ground
Abs. Coordinates: (North 1174.9 m, East 1342.9 m)
Transport from 327.35 deg
Power Law Cal. : ppt = 987.5606 *(voltage)^ .8549

PERIOD # 1

Time : 6 : 51 : 25 to 7 : 21 : 24 (1800 s)
Maximum Concentration (ppt) : 348
Peak (99 perc) to mean ratio : 3.321489
Plume intermittency : .7188889
Mean Concentration (ppt) :

	Total	Conditional
Mean Concentration (ppt)	93.35944	129.8663
Concentration fluc. intensity (%)	96.67369	62.50986
Skewness	.7019637	.4965858
Kurtosis	2.27749	2.008778

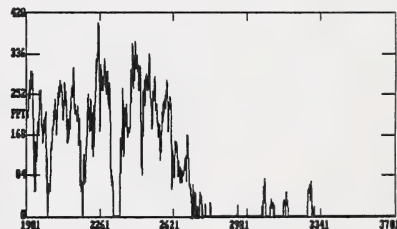
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 67 310
Percentile: 28.11 28.11 28.11 47.61 63.89 80.61 95.11 98.17 99.83
Conc. (ppt): 2 6 19 60 108 194 260 292 328

**PERIOD # 2**

Time : 7 : 21 : 25 to 7 : 51 : 24 (1800 s)
Maximum Concentration (ppt) : 399
Peak (99 perc) to mean ratio : 3.81642
Plume intermittency : .4911111
Mean Concentration (ppt) :

	Total	Conditional
Mean Concentration (ppt)	87.16889	177.4932
Concentration fluc. intensity (%)	125.2888	51.18813
Skewness	.7990851	-.2239822
Kurtosis	2.083548	1.962994

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 333
Percentile: 50.89 50.89 51.94 59.67 65.50 80.83 96.11 99.06 99.83
Conc. (ppt): 2 6 20 66 120 219 296 333 376



Field Test 25
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:17 Dec 14 88
Test Stop Time: 07:48 Dec 15 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 12

Analyser B Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 6

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 2

STATIONARY STATISTICS (T25A02)

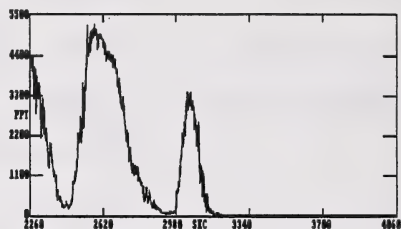
Scans : 2260 to 6850
 Date : 12-14-1988 Start Time : 17:23:16
 Location: D6 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2142.3 m, East 1554.3 m)
 Transport from 237.31 deg
 Power Law Cal. : Time = 16.08 , ppt = 1433.5 *(voltage)^ 2.101
 For volt > .803 : ppt = 1118.6 *(voltage)^ .968
 At time = 32.45 , ppt = 1632.4 *(voltage)^ 1.694
 For volt > .594 : ppt = 1118.6 *(voltage)^ .968

PERIOD # 1

Time : 18 : 0 : 48 to 18 : 30 : 47 (1800 s)
 Maximum Concentration (ppt) : 5260
 Peak (99 perc) to mean ratio : 5.135561
 Plume intermittency : .575

	Total	Conditional
Mean Concentration (ppt)	998.1306	1735.879
Concentration fluc. intensity (%)	153.3246	96.26711
Skewness	1.410063	.6305503
Kurtosis	3.604108	1.994156

 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 44 5126
 Percentile: 44.83 47.67 52.17 62.17 68.50 79.50 88.22 91.11 96.78
 Conc. (ppt): 2 13 73 402 948 2233 3427 4068 4828

**STATIONARY STATISTICS (T25A04)**

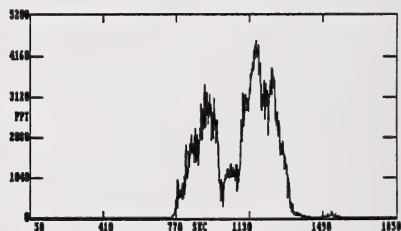
Scans : 50 to 6800
 Date : 12-14-1988 Start Time : 19:33:21
 Location: D0 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2072.6 m, East 1593.6 m)
 Transport from 243.86 deg
 Power Law Cal. : Time = 16.08 , ppt = 1433.5 *(voltage)^ 2.101
 For volt > .803 : ppt = 1118.6 *(voltage)^ .968
 At time = 32.45 , ppt = 1632.4 *(voltage)^ 1.694
 For volt > .594 : ppt = 1118.6 *(voltage)^ .968

PERIOD # 1

Time : 19 : 34 : 3 to 20 : 4 : 2 (1800 s)
 Maximum Concentration (ppt) : 4546
 Peak (99 perc) to mean ratio : 6.294649
 Plume intermittency : .4777778

	Total	Conditional
Mean Concentration (ppt)	669.7011	1401.7
Concentration fluc. intensity (%)	170.6664	93.24176
Skewness	1.610557	.5456209
Kurtosis	4.366027	2.066473

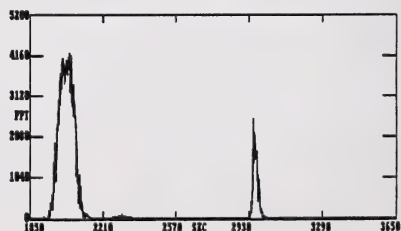
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 44 4216
 Percentile: 52.83 57.39 64.06 69.00 72.33 83.83 92.78 96.56 98.89
 Conc. (ppt): 2 13 67 363 844 1958 2984 3531 4179

**PERIOD # 2**

Time : 20 : 4 : 3 to 20 : 34 : 2 (1800 s)
 Maximum Concentration (ppt) : 4226
 Peak (99 perc) to mean ratio : 16.30845
 Plume intermittency : .4327778

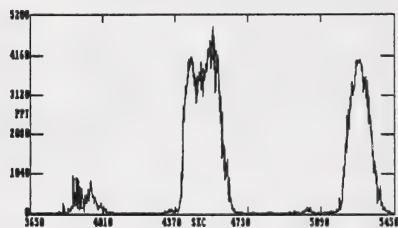
	Total	Conditional
Mean Concentration (ppt)	245.7861	567.9268
Concentration fluc. intensity (%)	327.2334	201.669
Skewness	3.616813	2.041104
Kurtosis	15.19544	5.758887

 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 4008
 Percentile: 64.56 78.78 85.78 89.50 91.06 94.17 95.67 96.72 98.44
 Conc. (ppt): 2 12 65 345 796 1834 2784 3290 3887



PERIOD # 3

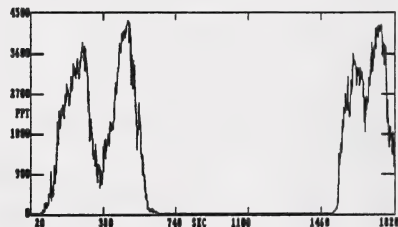
Time : 20 : 34 : 3 to 21 : 4 : 2 (1800 s)
 Maximum Concentration (ppt) : 4892
 Peak (99 perc) to mean ratio : 6.006736
 Plume intermittency : .8077778
 Total Conditional
 Mean Concentration (ppt) : 743.6778 920.6465
 Concentration fluc. intensity (%) : 180.3138 156.0164
 Skewness : 1.66936 1.343088
 Kurtosis : 4.150185 3.132497
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 46 4467
 Percentile: 22.06 38.39 58.39 72.39 78.06 82.61 87.17 93.33 99.22
 Conc. (ppt): 2 13 70 383 895 2092 3199 3791 4494

**STATIONARY STATISTICS (T25A06)**

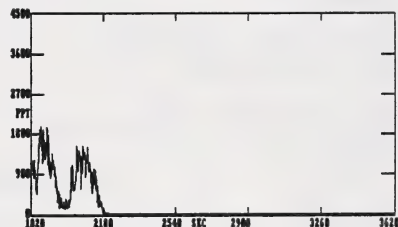
Scans : 20 to 5950
 Date : 12-14-1988 Start Time : 21:35:58
 Location: D0 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2072.6 m, East 1593.6 m)
 Transport from 243.86 deg
 Power Law Cal. : Time = 16.08 , ppt = 1433.5 *(voltage)^ 2.101
 For volt > .803 : ppt = 1118.6 *(voltage)^ .968
 At time = 32.45 , ppt = 1632.4 *(voltage)^ 1.694
 For volt > .594 : ppt = 1118.6 *(voltage)^ .968

PERIOD # 1

Time : 21 : 36 : 10 to 22 : 6 : 9 (1800 s)
 Maximum Concentration (ppt) : 4331
 Peak (99 perc) to mean ratio : 3.946555
 Plume intermittency : .5355555
 Total Conditional
 Mean Concentration (ppt) : 1073.002 2003.53
 Concentration fluc. intensity (%) : 131.7229 68.17578
 Skewness : .8810766 -.1167944
 Kurtosis : 2.208961 1.716515
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 9 4235
 Percentile: 48.17 50.94 53.78 57.72 60.44 69.83 81.83 89.78 96.39
 Conc. (ppt): 2 12 66 351 811 1875 2849 3369 3983

**PERIOD # 2**

Time : 22 : 6 : 10 to 22 : 36 : 9 (1800 s)
 Maximum Concentration (ppt) : 1968
 Peak (99 perc) to mean ratio : 9.776785
 Plume intermittency : .2361111
 Total Conditional
 Mean Concentration (ppt) : 170.0033 720.0141
 Concentration fluc. intensity (%) : 234.3389 72.98687
 Skewness : 2.37905 .2128249
 Kurtosis : 7.616076 1.953834
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1662
 Percentile: 78.00 78.44 79.56 81.89 85.17 90.33 96.94 98.61 99.67
 Conc. (ppt): 2 10 44 202 432 922 1347 1567 1824



STATIONARY STATISTICS (T25A07)

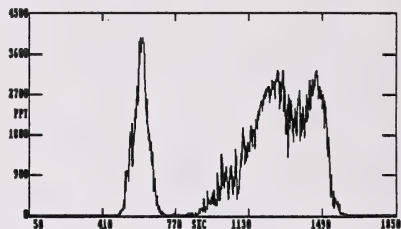
Scans : 50 to 17600
Date : 12-14-1988 Start Time : 23:47:51
Location: D0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2072.6 m, East 1593.6 m)
Transport from 243.86 deg
Power Law Cal. : Time = 16.08 , ppt = 1433.5 *(voltage)^ 2.101
For volt > .803 : ppt = 1118.6 *(voltage)^ .968
At time = 32.45 , ppt = 1632.4 *(voltage)^ 1.694
For volt > .594 : ppt = 1118.6 *(voltage)^ .968

PERIOD # 1

Time : 23 : 48 : 33 to 0 : 18 : 32 (1800 s)
Maximum Concentration (ppt) : 3968
Peak (99 perc) to mean ratio : 4.511498
Plume intermittency : .6516666

	Total	Conditional
Mean Concentration (ppt)	822.3066	1261.852
Concentration fluc. intensity (%)	134.7544	91.37894
Skewness	1.030667	.3985316
Kurtosis	2.60238	1.766976

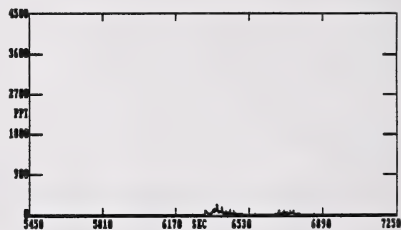
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 61 3710
Percentile: 38.33 43.94 50.22 58.28 64.39 75.17 88.56 97.06 98.78
Conc. (ppt): 2 12 63 330 757 1733 2622 3095 3652

**PERIOD # 4**

Time : 1 : 18 : 33 to 1 : 48 : 32 (1800 s)
Maximum Concentration (ppt) : 222
Peak (99 perc) to mean ratio : 13.44474
Plume intermittency : .3305556

	Total	Conditional
Mean Concentration (ppt)	8.774445	26.54454
Concentration fluc. intensity (%)	257.7701	123.5697
Skewness	3.849243	2.072395
Kurtosis	21.87444	8.612363

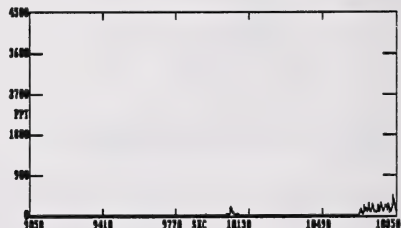
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 118
Percentile: 70.89 78.89 84.22 92.83 97.33 99.44 99.78 99.83 99.94
Conc. (ppt): 2 5 15 44 75 129 169 189 210

**PERIOD # 6**

Time : 2 : 18 : 33 to 2 : 48 : 32 (1800 s)
Maximum Concentration (ppt) : 473
Peak (99 perc) to mean ratio : 15.11262
Plume intermittency : .2188889

	Total	Conditional
Mean Concentration (ppt)	18.83111	86.03046
Concentration fluc. intensity (%)	300.4977	109.3358
Skewness	3.526515	1.028529
Kurtosis	16.2197	3.438046

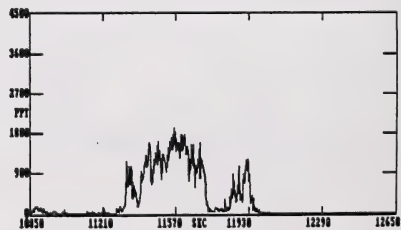
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 285
Percentile: 80.72 85.00 87.44 90.00 93.78 98.67 99.72 99.89 99.94
Conc. (ppt): 2 6 22 75 138 255 348 393 445

**PERIOD # 7**

Time : 2 : 48 : 33 to 3 : 18 : 32 (1800 s)
Maximum Concentration (ppt) : 1901
Peak (99 perc) to mean ratio : 5.628213
Plume intermittency : .6616667

	Total	Conditional
Mean Concentration (ppt)	304.7583	460.5919
Concentration fluc. intensity (%)	160.6749	117.0407
Skewness	1.48107	.8785836
Kurtosis	3.770801	2.303063

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 26 1715
Percentile: 37.72 45.22 54.94 70.56 74.78 82.56 93.06 96.67 99.56
Conc. (ppt): 2 10 44 197 420 893 1303 1516 1763

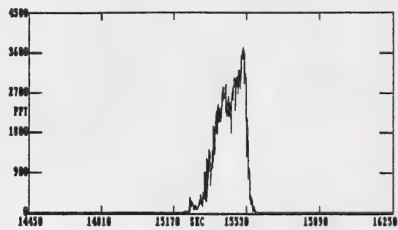


PERIOD # 9

Time : 3 : 48 : 33 to 4 : 18 : 32 (1800 s)
 Maximum Concentration (ppt) : 3700
 Peak (99 perc) to mean ratio : 11.85879
 Plume intermittency : .2538889

	<u>Total</u>	<u>Conditional</u>
Mean Concentration (ppt)	: 284.5855	1120.906
Concentration fluc. intensity (%)	: 273.7728	107.5558
Skewness	: 2.789742	.5894037
Kurtosis	: 9.457376	1.7338

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 3375
 Percentile: 77.50 79.11 82.06 86.50 88.44 90.78 94.39 97.39 99.11
 Conc. (ppt): 2 12 61 315 715 1627 2454 2892 3408

**STATIONARY STATISTICS (T25A10)**

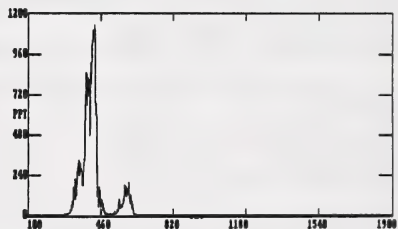
Scans : 100 to 10050
 Date : 12-15-1988 Start Time : 05:13:54
 Location: D0 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2072.6 m, East 1593.6 m)
 Transport from 243.86 deg
 Power Law Cal. : Time = 16.08 , ppt = $1433.5 * (\text{voltage})^{2.101}$
 For volt > .803 : ppt = $1118.6 * (\text{voltage})^{.968}$
 At time = 32.45 , ppt = $1632.4 * (\text{voltage})^{1.694}$
 For volt > .594 : ppt = $1118.6 * (\text{voltage})^{.968}$

PERIOD # 1

Time : 5 : 15 : 26 to 5 : 45 : 25 (1800 s)
 Maximum Concentration (ppt) : 1131
 Peak (99 perc) to mean ratio : 22.67102
 Plume intermittency : .1983333

	<u>Total</u>	<u>Conditional</u>
Mean Concentration (ppt)	: 41.92556	211.3894
Concentration fluc. intensity (%)	: 376.276	141.6478
Skewness	: 4.941986	1.775723
Kurtosis	: 28.35323	4.968249

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 61 950
 Percentile: 80.89 83.56 86.89 92.61 95.56 97.00 98.22 98.89 99.33
 Conc. (ppt): 2 8 34 137 277 560 796 916 1054



STATIONARY STATISTICS (T25B04)

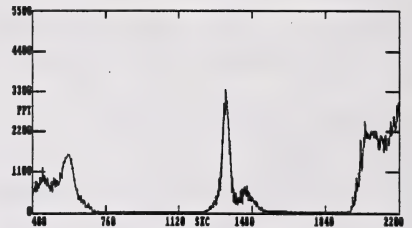
Scans : 400 to 7800
Date : 12-14-1988 Start Time : 18:52:08
Location: E7 on 700 m C Source : C Ground
Abs. Coordinates: (North 1941.6 m, East 1642.3 m)
Transport from 255.32 deg
Power Law Cal. : ppt = 502.8 *(voltage)^ 1.083

PERIOD # 1

Time : 18 : 58 : 40 to 19 : 28 : 39 (1800 s)
Maximum Concentration (ppt) : 3322
Peak (99 perc) to mean ratio : 6.002918
Plume intermittency : .55

	Total	Conditional
Mean Concentration (ppt)	465.1567	845.7394
Concentration fluc. intensity (%)	159.2806	97.23
Skewness	1.660308	.8685083
Kurtosis	4.672755	2.576293

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 29 2792
Percentile: 45.00 46.61 55.72 64.17 74.28 86.39 96.28 98.50 99.72
Conc. (ppt): 2 11 58 292 656 1477 2215 2605 3063



STATIONARY STATISTICS (T25B06)

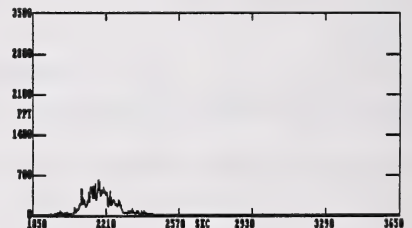
Scans : 50 to 9570
Date : 12-14-1988 Start Time : 21:17:20
Location: E7 on 700 m C Source : C Ground
Abs. Coordinates: (North 1941.6 m, East 1642.3 m)
Transport from 255.32 deg
Power Law Cal. : ppt = 502.8 *(voltage)^ 1.083

PERIOD # 2

Time : 21 : 48 : 2 to 22 : 18 : 1 (1800 s)
Maximum Concentration (ppt) : 614
Peak (99 perc) to mean ratio : 11.67659
Plume intermittency : .2577778

	Total	Conditional
Mean Concentration (ppt)	40.58445	157.4397
Concentration fluc. intensity (%)	255.4579	96.95375
Skewness	2.967057	.9157691
Kurtosis	11.29447	2.647479

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 474
Percentile: 74.22 74.22 78.28 87.83 89.44 95.39 98.61 99.44 99.89
Conc. (ppt): 2 7 25 89 170 323 445 506 576

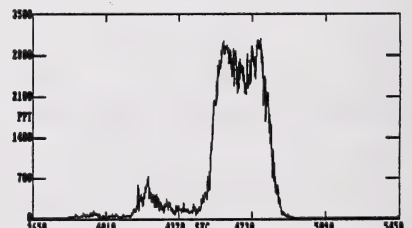


PERIOD # 3

Time : 22 : 18 : 2 to 22 : 48 : 1 (1800 s)
Maximum Concentration (ppt) : 3090
Peak (99 perc) to mean ratio : 6.194652
Plume intermittency : .5972222

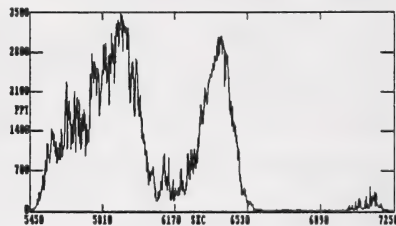
	Total	Conditional
Mean Concentration (ppt)	489.0528	818.8791
Concentration fluc. intensity (%)	187.5121	130.2729
Skewness	1.825583	1.049694
Kurtosis	4.643203	2.33489

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 38 3030
Percentile: 40.28 41.33 55.44 73.67 81.56 83.89 86.33 89.56 96.06
Conc. (ppt): 2 11 56 277 619 1383 2068 2428 2851



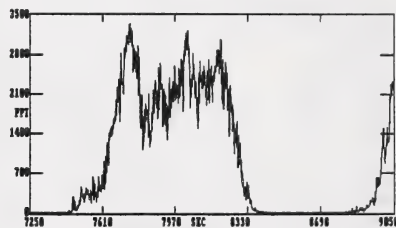
PERIOD # 4

Time : 22 : 48 : 2 to 23 : 18 : 1 (1800 s)
Maximum Concentration (ppt) : 3478
Peak (99 perc) to mean ratio : 3.734493
Plume intermittency : .7694445
Total Conditional
Mean Concentration (ppt) : 896.7733 1165.482
Concentration fluc. intensity (%) : 113.7328 87.44898
Skewness : .8773682 .5375404
Kurtosis : 2.43065 1.999593
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 451 3349
Percentile: 23.06 25.17 33.94 46.00 56.17 73.61 84.72 92.89 97.89
Conc. (ppt): 2 12 59 301 681 1539 2313 2723 3206



PERIOD # 5

Time : 23 : 18 : 2 to 23 : 48 : 1 (1800 s)
Maximum Concentration (ppt) : 3342
Peak (99 perc) to mean ratio : 3.483622
Plume intermittency : .6577778
Total Conditional
Mean Concentration (ppt) : 900.8306 1369.506
Concentration fluc. intensity (%) : 115.926 73.60404
Skewness : .6701978 8.887496E-03
Kurtosis : 1.856075 1.558376
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 279 3138
Percentile: 34.22 34.89 41.17 50.56 58.67 66.83 83.17 92.94 98.72
Conc. (ppt): 2 11 58 293 659 1485 2227 2620 3082

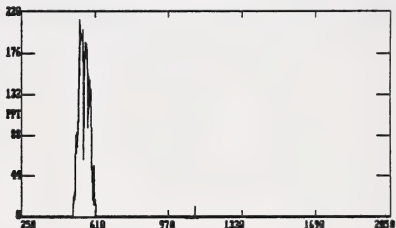


STATIONARY STATISTICS (T25B09)

Scans : 250 to 10100
Date : 12-15-1988 Start Time : 05:15:50
Location: E7 on 700 m C Source : C Ground
Abs. Coordinates: (North 1941.6 m, East 1642.3 m)
Transport from 255.32 deg
Power Law Cal. : ppt = 502.8 *(voltage)^ 1.083

PERIOD # 1

Time : 5 : 19 : 52 to 5 : 49 : 51 (1800 s)
Maximum Concentration (ppt) : 212
Peak (99 perc) to mean ratio : 27.6082
Plume intermittency : 6.277778E-02
Total Conditional
Mean Concentration (ppt) : 6.715 106.9646
Concentration fluc. intensity (%) : 454.1346 59.79097
Skewness : 4.899455 -7.549968E-02
Kurtosis : 26.637 1.628044
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 185
Percentile: 93.72 93.72 94.06 95.22 95.72 97.44 98.17 98.72 99.89
Conc. (ppt): 2 5 15 43 73 124 162 181 201



STATIONARY STATISTICS (T25C25)

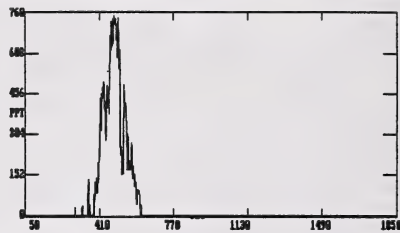
Scans : 50 to 9350
Date : 12-15-1988 Start Time : 05:19:22
Location: F3 on 700 m C Source : C Ground
Abs. Coordinates: (North 1823.5 m, East 1662.7 m)
Transport from 265.14 deg
Power Law Cal. : Time = 16.25 , ppt = 1099.2 *(voltage)^ .834
At time = 32.75 , ppt = 912.3 *(voltage)^ .918

PERIOD # 1

Time : 5 : 20 : 3 to 5 : 50 : 2 (1800 s)
Maximum Concentration (ppt) : 750
Peak (99 perc) to mean ratio : 16.42983
Plume intermittency : .1344444

	Total	Conditional
Mean Concentration (ppt)	43.76889	325.5537
Concentration fluc. intensity (%)	316.6916	69.48639
Skewness	3.574657	.4939268
Kurtosis	15.39546	1.956294

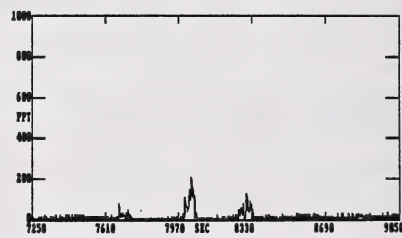
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 719
Percentile: 86.56 86.56 86.67 89.22 91.94 94.56 97.11 97.61 98.44
Conc. (ppt): 2 7 27 103 200 387 539 615 702

**PERIOD # 5**

Time : 7 : 20 : 3 to 7 : 50 : 2 (1800 s)
Maximum Concentration (ppt) : 197
Peak (99 perc) to mean ratio : 23.82542
Plume intermittency : 6.888889E-02

	Total	Conditional
Mean Concentration (ppt)	4.741667	68.83064
Concentration fluc. intensity (%)	425.2613	56.10038
Skewness	5.17353	1.168364
Kurtosis	33.09658	3.853758

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 113
Percentile: 93.11 93.11 93.11 95.06 97.44 99.11 99.78 99.83 99.89
Conc. (ppt): 2 5 14 40 68 116 151 168 187



Field Test 26
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:20 Dec 15 88
Test Stop Time: 08:48 Dec 16 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 14

Analyser B Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 15

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 23

STATIONARY STATISTICS (T26A04)

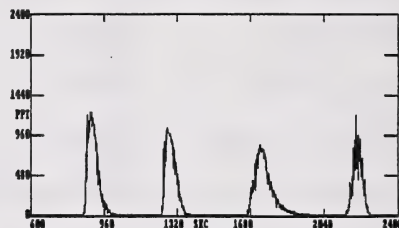
Scans : 600 to 15850
Date : 12-15-1988 Start Time : 19:52:28
Location: F9 on 700 m C Source : C Ground
Abs. Coordinates: (North 1703.7 m, East 1662.6 m)
Transport from 274.96 deg
Power Law Cal. : ppt = 1634 *(voltage)^ 1.643
For volt > .611 : ppt = 1172.7 *(voltage)^ .97

PERIOD # 1

Time : 20 : 2 : 20 to 20 : 32 : 19 (1800 s)
Maximum Concentration (ppt) : 1228
Peak (99 perc) to mean ratio : 7.991163
Plume intermittency : .5577778

	Total	Conditional
Mean Concentration (ppt)	141.01	252.8068
Concentration fluc. intensity (%)	198.4224	132.4322
Skewness	2.1196	1.238229
Kurtosis	6.422675	3.256392

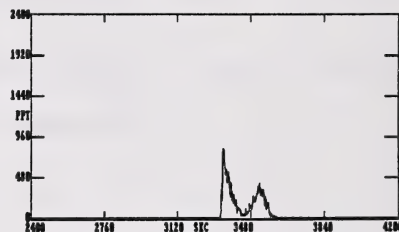
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1127
Percentile: 53.17 61.83 68.50 77.44 82.67 89.33 95.33 97.67 99.17
Conc. (ppt): 2 8 35 145 296 603 860 992 1144

**PERIOD # 2**

Time : 20 : 32 : 20 to 21 : 2 : 19 (1800 s)
Maximum Concentration (ppt) : 815
Peak (99 perc) to mean ratio : 16.27538
Plume intermittency : .18

	Total	Conditional
Mean Concentration (ppt)	31.73556	176.3086
Concentration fluc. intensity (%)	313.1089	97.19411
Skewness	3.939822	1.165132
Kurtosis	20.30108	4.037326

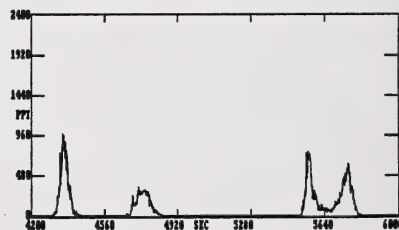
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 517
Percentile: 83.33 84.61 86.06 90.50 93.78 98.33 99.44 99.72 99.89
Conc. (ppt): 2 7 29 109 213 417 583 667 762

**PERIOD # 3**

Time : 21 : 2 : 20 to 21 : 32 : 19 (1800 s)
Maximum Concentration (ppt) : 972
Peak (99 perc) to mean ratio : 10.52784
Plume intermittency : .3916667

	Total	Conditional
Mean Concentration (ppt)	73.66167	188.0723
Concentration fluc. intensity (%)	217.311	111.4125
Skewness	2.858136	1.520158
Kurtosis	11.64599	4.90638

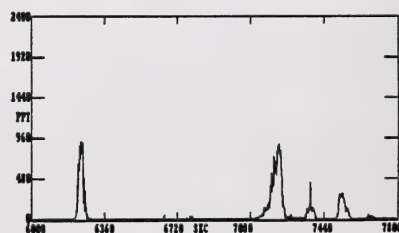
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 775
Percentile: 62.72 67.28 71.56 81.00 87.61 96.00 98.06 99.17 99.78
Conc. (ppt): 2 8 31 123 246 489 689 791 907

**PERIOD # 4**

Time : 21 : 32 : 20 to 22 : 2 : 19 (1800 s)
Maximum Concentration (ppt) : 918
Peak (99 perc) to mean ratio : 16.70882
Plume intermittency : .3938889

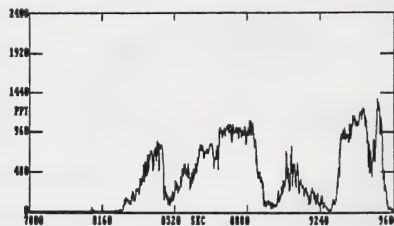
	Total	Conditional
Mean Concentration (ppt)	49.75945	126.3286
Concentration fluc. intensity (%)	304.1663	174.2996
Skewness	3.943968	2.184246
Kurtosis	18.74468	6.840756

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 831
Percentile: 65.22 74.39 83.56 89.61 93.00 96.06 97.61 98.11 99.28
Conc. (ppt): 2 8 30 119 235 464 653 748 857

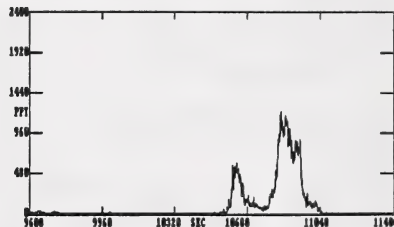


PERIOD # 5

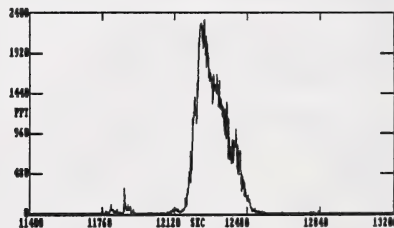
Time : 22 : 2 : 20 to 22 : 32 : 19 (1800 s)
 Maximum Concentration (ppt) : 1362
 Peak (99 perc) to mean ratio : 3.122671
 Plume intermittency : .7927778
 Total Conditional
 Mean Concentration (ppt) : 392.4017 494.9706
 Concentration fluc. intensity (%) : 97.24264 73.65044
 Skewness : .5836169 .3039067
 Kurtosis : 1.943033 1.76795
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 270 1225
 Percentile: 22.39 24.11 27.89 40.72 54.17 71.72 87.00 96.61 99.78
 Conc. (ppt): 2 9 37 156 322 662 949 1097 1267

**PERIOD # 6**

Time : 22 : 32 : 20 to 23 : 2 : 19 (1800 s)
 Maximum Concentration (ppt) : 1215
 Peak (99 perc) to mean ratio : 11.32756
 Plume intermittency : .5238889
 Total Conditional
 Mean Concentration (ppt) : 95.14389 181.6108
 Concentration fluc. intensity (%) : 244.5312 162.988
 Skewness : 2.961895 1.874191
 Kurtosis : 11.1689 5.41775
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1078
 Percentile: 61.39 67.83 74.50 84.78 89.50 93.67 96.72 98.11 99.50
 Conc. (ppt): 2 8 35 144 294 597 852 982 1132

**PERIOD # 7**

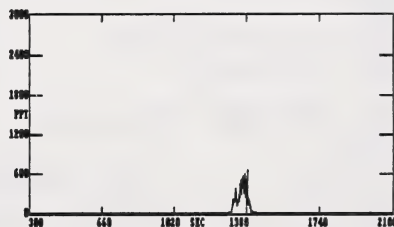
Time : 23 : 2 : 20 to 23 : 32 : 19 (1800 s)
 Maximum Concentration (ppt) : 2324
 Peak (99 perc) to mean ratio : 10.86316
 Plume intermittency : .5427778
 Total Conditional
 Mean Concentration (ppt) : 199.5739 367.6899
 Concentration fluc. intensity (%) : 245.9782 168.133
 Skewness : 2.654825 1.641518
 Kurtosis : 9.095383 4.418993
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2168
 Percentile: 58.89 67.06 78.61 83.78 86.56 90.89 95.72 97.33 98.89
 Conc. (ppt): 2 10 48 227 493 1071 1577 1842 2151

**STATIONARY STATISTICS (T26A06)**

Scans : 300 to 17350
 Date : 12-16-1988 Start Time : 00:26:01
 Location: F9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1703.7 m, East 1662.6 m)
 Transport from 274.96 deg
 Power Law Cal. : ppt = 1634 *(voltage)^ 1.643
 For volt > .611 : ppt = 1172.7 *(voltage)^ .97

PERIOD # 1

Time : 0 : 30 : 53 to 1 : 0 : 52 (1800 s)
 Maximum Concentration (ppt) : 664
 Peak (99 perc) to mean ratio : 29.98166
 Plume intermittency : .085
 Total Conditional
 Mean Concentration (ppt) : 15.36889 180.8105
 Concentration fluc. intensity (%) : 471.5396 98.74063
 Skewness : 5.571933 .815384
 Kurtosis : 36.1485 2.633373
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 461
 Percentile: 91.94 93.17 94.39 95.06 96.28 98.33 99.11 99.67 99.89
 Conc. (ppt): 2 7 26 95 181 347 480 546 622

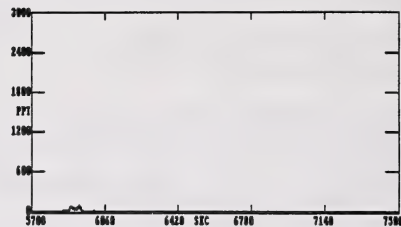


PERIOD # 4

Time : 2 : 0 : 53 to 2 : 30 : 52 (1800 s)
 Maximum Concentration (ppt) : 102
 Peak (99 perc) to mean ratio : 27.66487
 Plume intermittency : 8.72222E-02

	Total	Conditional
Mean Concentration (ppt)	2.123333	24.34395
Concentration fluc. intensity (%)	470.2567	100.8001
Skewness	5.891918	1.099604
Kurtosis	40.74583	3.233625

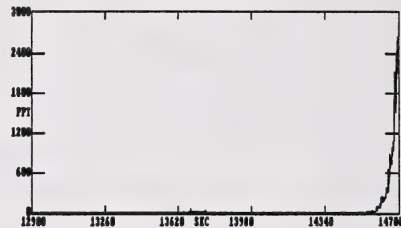
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 59
 Percentile: 91.72 93.67 94.72 96.89 97.89 99.33 99.72 99.89 99.89
 Conc. (ppt): 2 4 10 25 40 64 81 89 97

**PERIOD # 8**

Time : 4 : 0 : 53 to 4 : 30 : 52 (1800 s)
 Maximum Concentration (ppt) : 2582
 Peak (99 perc) to mean ratio : 36.19189
 Plume intermittency : .1677778

	Total	Conditional
Mean Concentration (ppt)	42.95111	256
Concentration fluc. intensity (%)	565.7197	213.0098
Skewness	7.483968	2.717139
Kurtosis	63.6422	9.768267

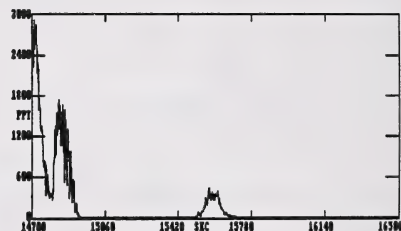
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1554
 Percentile: 84.44 90.17 94.22 96.67 97.39 98.78 99.11 99.33 99.78
 Conc. (ppt): 2 11 51 245 536 1177 1743 2040 2387

**PERIOD # 9**

Time : 4 : 30 : 53 to 5 : 0 : 52 (1800 s)
 Maximum Concentration (ppt) : 2931
 Peak (99 perc) to mean ratio : 15.67736
 Plume intermittency : .2711111

	Total	Conditional
Mean Concentration (ppt)	149.6878	552.1271
Concentration fluc. intensity (%)	291.1689	125.2826
Skewness	3.791685	1.583256
Kurtosis	18.42343	4.874136

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2347
 Percentile: 74.22 76.50 80.61 85.72 91.89 96.06 98.33 98.94 99.50
 Conc. (ppt): 2 11 54 267 594 1319 1966 2307 2706

**STATIONARY STATISTICS (T26A08)**

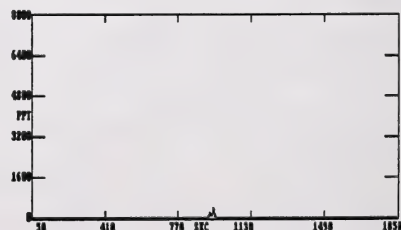
Scans : 50 to 11850
 Date : 12-16-1988 Start Time : 05:26:49
 Location: F9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1703.7 m, East 1662.6 m)
 Transport from 274.96 deg
 Power Law Cal. : ppt = 1634 *(voltage)^ 1.643
 For volt > .611 : ppt = 1172.7 *(voltage)^ .97

PERIOD # 1

Time : 5 : 27 : 31 to 5 : 57 : 30 (1800 s)
 Maximum Concentration (ppt) : 384
 Peak (99 perc) to mean ratio : 42.60102
 Plume intermittency : .045

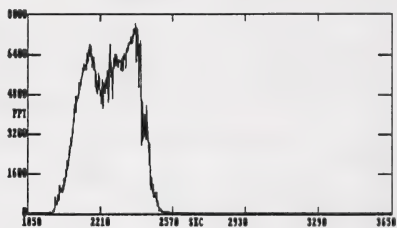
	Total	Conditional
Mean Concentration (ppt)	2.901111	64.46914
Concentration fluc. intensity (%)	763.2437	129.0904
Skewness	10.26462	1.673032
Kurtosis	128.2401	5.746853

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 124
 Percentile: 95.61 96.94 97.78 98.28 98.94 99.72 99.83 99.89 99.94
 Conc. (ppt): 2 6 20 64 117 212 285 321 362



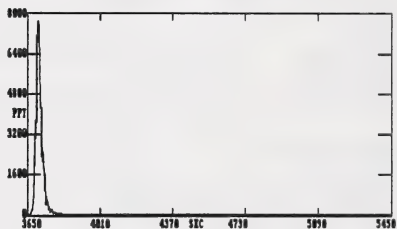
PERIOD # 2

Time : 5 : 57 : 31 to 6 : 27 : 30 (1800 s)
Maximum Concentration (ppt) : 7633
Peak (99 perc) to mean ratio : 5.631042
Plume intermittency : .3944444
: Total Conditional
Mean Concentration (ppt) : 1278.237 3240.6
Concentration fluc. intensity (%) : 181.3366 83.15612
Skewness : 1.487719 -6.559052E-03
Kurtosis : 3.488258 1.319768
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 7198
Percentile: 63.11 66.83 70.22 72.50 76.22 79.61 84.00 89.44 98.50
Conc. (ppt): 2 15 87 522 1277 3122 4882 5837 6980



PERIOD # 3

Time : 6 : 27 : 31 to 6 : 57 : 30 (1800 s)
Maximum Concentration (ppt) : 7704
Peak (99 perc) to mean ratio : 35.0046
Plume intermittency : .1522222
: Total Conditional
Mean Concentration (ppt) : 137.0622 900.4088
Concentration fluc. intensity (%) : 583.8076 208.3371
Skewness : 7.311686 2.442335
Kurtosis : 60.01152 8.056822
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 4798
Percentile: 86.50 90.67 93.61 96.33 97.06 98.28 99.06 99.17 99.44
Conc. (ppt): 2 15 88 526 1286 3148 4925 5890 7044



STATIONARY STATISTICS (T26B02)

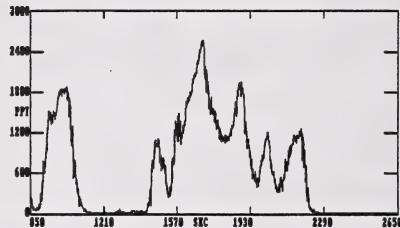
Scans : 850 to 8650
 Date : 12-15-1988 Start Time : 17:24:54
 Location: E9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1902.7 m, East 1651.4 m)
 Transport from 258.59 deg
 Power Law Cal. : $ppt = 503.8 * (voltage)^{1.083}$

PERIOD # 1

Time : 17 : 38 : 56 to 18 : 8 : 55 (1800 s)
 Maximum Concentration (ppt) : 2563
 Peak (99 perc) to mean ratio : 3.837196
 Plume intermittency : .685

	Total	Conditional
Mean Concentration (ppt)	628.4756	917.4825
Concentration fluc. intensity (%)	109.8687	71.54532
Skewness	.7463395	.2656702
Kurtosis	2.364002	2.170732

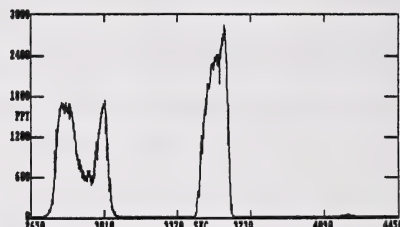
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 369 2412
 Percentile: 31.50 31.78 40.72 46.72 54.28 76.28 90.39 96.78 98.72
 Conc. (ppt): 2 11 51 243 533 1169 1731 2025 2370

**PERIOD # 2**

Time : 18 : 8 : 56 to 18 : 38 : 55 (1800 s)
 Maximum Concentration (ppt) : 2852
 Peak (99 perc) to mean ratio : 7.472105
 Plume intermittency : .3333333

	Total	Conditional
Mean Concentration (ppt)	346.015	1038.045
Concentration fluc. intensity (%)	194.7598	77.31187
Skewness	1.915583	.3349066
Kurtosis	5.521993	1.998082

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2585
 Percentile: 66.67 66.78 72.06 75.00 78.06 86.67 94.61 96.28 99.39
 Conc. (ppt): 2 11 53 262 581 1287 1916 2246 2634

**STATIONARY STATISTICS (T26B04)**

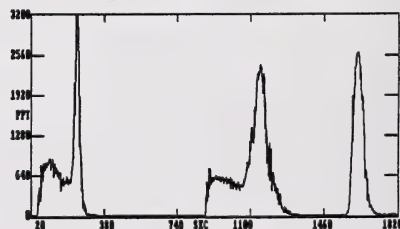
Scans : 20 to 18200
 Date : 12-15-1988 Start Time : 20:07:13
 Location: E9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1902.7 m, East 1651.4 m)
 Transport from 258.59 deg
 Power Law Cal. : $ppt = 503.8 * (voltage)^{1.083}$

PERIOD # 1

Time : 20 : 7 : 25 to 20 : 37 : 24 (1800 s)
 Maximum Concentration (ppt) : 3587
 Peak (99 perc) to mean ratio : 7.246109
 Plume intermittency : .5

	Total	Conditional
Mean Concentration (ppt)	373.21	746.42
Concentration fluc. intensity (%)	168.7083	96.07935
Skewness	2.254647	1.490411
Kurtosis	8.097502	4.748327

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2704
 Percentile: 50.00 50.28 57.50 63.50 82.67 92.78 97.94 99.33 99.61
 Conc. (ppt): 2 12 60 308 698 1582 2382 2806 3305

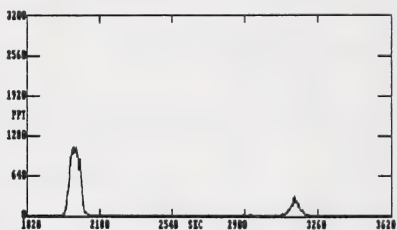


PERIOD # 2

Time : 20 : 37 : 25 to 21 : 7 : 24 (1800 s)
Maximum Concentration (ppt) : 1108
Peak (99 perc) to mean ratio : 22.80995
Plume intermittency : .1388889

	Total	Conditional
Mean Concentration (ppt)	44.51389	320.5
Concentration fluc. intensity (%)	390.0064	111.8686
Skewness	4.699071	1.087468
Kurtosis	24.93957	2.613843

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1015
Percentile: 86.11 86.11 88.72 92.44 95.28 96.67 97.39 97.89 99.17
Conc. (ppt): 2 8 33 135 273 550 780 898 1033

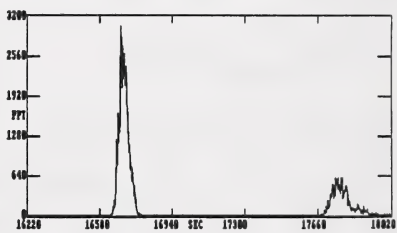


PERIOD # 10

Time : 0 : 37 : 25 to 1 : 7 : 24 (1800 s)
Maximum Concentration (ppt) : 3037
Peak (99 perc) to mean ratio : 21.04037
Plume intermittency : .2322222

	Total	Conditional
Mean Concentration (ppt)	110.6772	476.6005
Concentration fluc. intensity (%)	346.2876	142.0182
Skewness	4.876787	2.047227
Kurtosis	28.44981	6.326254

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2329
Percentile: 76.78 76.89 82.17 89.72 95.28 97.56 98.17 99.17 99.72
Conc. (ppt): 2 11 55 274 611 1362 2034 2388 2803



STATIONARY STATISTICS (T26B07)

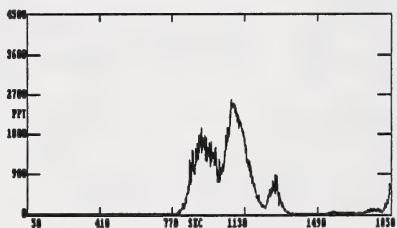
Scans : 50 to 16200
Date : 12-16-1988 Start Time : 01:21:57
Location: E9 on 700 m C Source : C Ground
Abs. Coordinates: (North 1902.7 m, East 1651.4 m)
Transport from 258.59 deg
Power Law Cal. : ppt = 503.8 *(voltage)^ 1.083

PERIOD # 1

Time : 1 : 22 : 39 to 1 : 52 : 38 (1800 s)
Maximum Concentration (ppt) : 2574
Peak (99 perc) to mean ratio : 7.682882
Plume intermittency : .4905556

	Total	Conditional
Mean Concentration (ppt)	315.2272	642.5923
Concentration fluc. intensity (%)	188.7833	111.3038
Skewness	1.98421	.9497609
Kurtosis	5.909141	2.694155

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 369 2422
Percentile: 50.94 54.11 64.39 74.44 79.67 87.61 95.06 97.17 98.72
Conc. (ppt): 2 11 51 244 535 1174 1738 2034 2380



PERIOD # 2

Time : 1 : 52 : 39 to 2 : 22 : 38 (1800 s)
Maximum Concentration (ppt) : 1569
Peak (99 perc) to mean ratio : 10.57366
Plume intermittency : .2516667

	Total	Conditional
Mean Concentration (ppt)	136.2889	541.5452
Concentration fluc. intensity (%)	256.1989	95.05541
Skewness	2.672536	.5198785
Kurtosis	9.006164	1.820928

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1441
Percentile: 74.83 77.61 82.00 84.28 86.56 91.67 94.22 95.94 99.28
Conc. (ppt): 2 9 40 173 360 752 1086 1258 1458

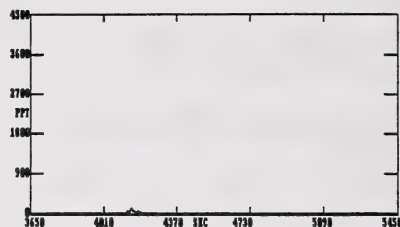


PERIOD # 3

Time : 2 : 22 : 39 to 2 : 52 : 38 (1800 s)
 Maximum Concentration (ppt) : 118
 Peak (99 perc) to mean ratio : 34.24164
 Plume intermittency : 4.666667E-02

	Total	Conditional
Mean Concentration (ppt)	1.9	40.71429
Concentration fluc. intensity (%)	557.3759	70.45921
Skewness	6.882799	.8900254
Kurtosis	55.78234	3.047544

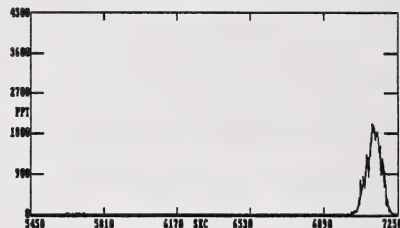
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 65
 Percentile: 95.33 95.33 95.94 97.28 98.33 99.28 99.67 99.78 99.89
 Conc. (ppt): 2 4 11 28 45 73 93 102 113

**PERIOD # 4**

Time : 2 : 52 : 39 to 3 : 22 : 38 (1800 s)
 Maximum Concentration (ppt) : 1984
 Peak (99 perc) to mean ratio : 19.4895
 Plume intermittency : .1672222

	Total	Conditional
Mean Concentration (ppt)	90.88722	543.5117
Concentration fluc. intensity (%)	365.506	118.3732
Skewness	4.042673	.8832501
Kurtosis	18.90423	2.333212

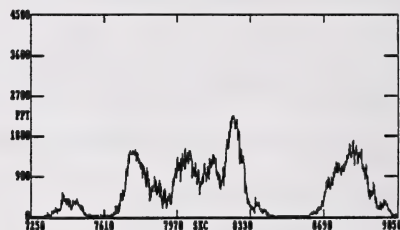
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1771
 Percentile: 83.28 84.56 89.56 92.00 93.00 95.44 97.11 98.06 99.33
 Conc. (ppt): 2 10 45 203 435 929 1357 1580 1839

**PERIOD # 5**

Time : 3 : 22 : 39 to 3 : 52 : 38 (1800 s)
 Maximum Concentration (ppt) : 2252
 Peak (99 perc) to mean ratio : 3.811069
 Plume intermittency : .88

	Total	Conditional
Mean Concentration (ppt)	560.5183	636.9526
Concentration fluc. intensity (%)	98.94124	86.10831
Skewness	.7905504	.6535025
Kurtosis	2.653361	2.521949

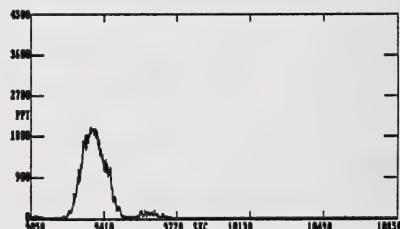
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 381 2136
 Percentile: 12.00 13.72 25.28 41.39 55.44 75.67 96.00 97.33 98.56
 Conc. (ppt): 2 10 47 222 481 1041 1531 1786 2085

**PERIOD # 6**

Time : 3 : 52 : 39 to 4 : 22 : 38 (1800 s)
 Maximum Concentration (ppt) : 1999
 Peak (99 perc) to mean ratio : 11.85664
 Plume intermittency : .3405555

	Total	Conditional
Mean Concentration (ppt)	162.065	475.8842
Concentration fluc. intensity (%)	270.3025	135.2321
Skewness	2.944856	1.179584
Kurtosis	10.49837	2.827196

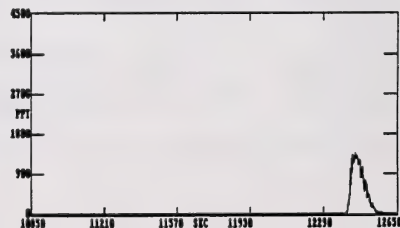
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1922
 Percentile: 65.94 67.22 78.56 87.00 89.06 91.44 94.67 95.94 98.11
 Conc. (ppt): 2 10 45 204 437 935 1367 1591 1853

**PERIOD # 7**

Time : 4 : 22 : 39 to 4 : 52 : 38 (1800 s)
 Maximum Concentration (ppt) : 1338
 Peak (99 perc) to mean ratio : 22.73364
 Plume intermittency : .1094444

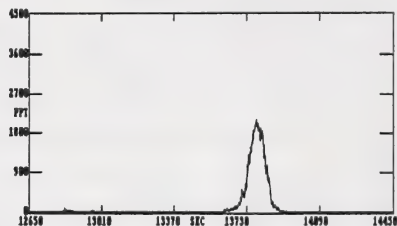
	Total	Conditional
Mean Concentration (ppt)	54.485	497.8325
Concentration fluc. intensity (%)	406.0261	95.58846
Skewness	4.473561	.5152186
Kurtosis	22.44393	1.695246

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1239
 Percentile: 89.06 89.61 91.72 93.17 94.39 96.17 97.17 97.61 99.06
 Conc. (ppt): 2 9 37 154 317 651 934 1078 1245



PERIOD # 8

Time : 4 : 52 : 39 to 5 : 22 : 38 (1800 s)
Maximum Concentration (ppt) : 2098
Peak (99 perc) to mean ratio : 17.60924
Plume intermittency : .2244444
Total Conditional
Mean Concentration (ppt) : 110.3689 491.7426
Concentration fluc. intensity (%) : 339.877 134.8016
Skewness : 3.846781 1.205426
Kurtosis : 17.0191 2.903863
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1944
Percentile: 77.56 79.72 85.22 91.17 92.83 94.72 96.61 97.22 99.00
Conc. (ppt): 2 10 46 211 454 976 1431 1668 1944

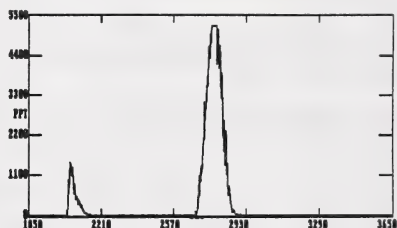


STATIONARY STATISTICS (T26B09)

Scans : 50 to 10150
Date : 12-16-1988 Start Time : 05:58:29
Location: E9 on 700 m C Source : C Ground
Abs. Coordinates: (North 1902.7 m, East 1651.4 m)
Transport from 258.59 deg
Power Law Cal. : ppt = 503.8 *(voltage)^ 1.083

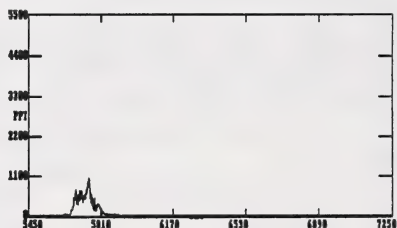
PERIOD # 2

Time : 6 : 29 : 11 to 6 : 59 : 10 (1800 s)
Maximum Concentration (ppt) : 5236
Peak (99 perc) to mean ratio : 16.52163
Plume intermittency : .2194444
Total Conditional
Mean Concentration (ppt) : 304.5978 1388.041
Concentration fluc. intensity (%) : 328.8693 126.208
Skewness : 3.785219 1.151934
Kurtosis : 16.70427 2.844378
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 5032
Percentile: 78.06 80.44 84.61 88.22 91.22 94.56 95.94 96.78 97.89
Conc. (ppt): 2 13 72 401 944 2224 3412 4050 4806



PERIOD # 4

Time : 7 : 29 : 11 to 7 : 59 : 10 (1800 s)
Maximum Concentration (ppt) : 1025
Peak (99 perc) to mean ratio : 18.06285
Plume intermittency : .1333333
Total Conditional
Mean Concentration (ppt) : 39.08667 293.15
Concentration fluc. intensity (%) : 349.4949 87.2901
Skewness : 3.994865 .6241643
Kurtosis : 19.33192 2.407752
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 706
Percentile: 86.67 86.67 89.83 91.56 93.50 97.28 99.17 99.56 99.94
Conc. (ppt): 2 8 32 128 256 512 725 833 956

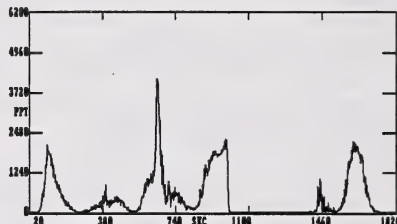


STATIONARY STATISTICS (T26C13)

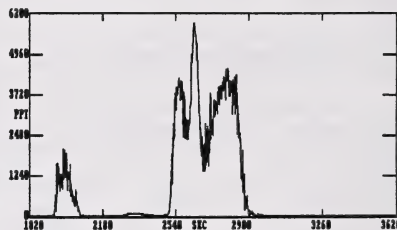
Scans : 20 to 5150
Date : 12-15-1988 Start Time : 18:29:53
Location: F4 on 700 m C Source : C Ground
Abs. Coordinates: (North 1803.6 m, East 1664.1 m)
Transport from 266.78 deg
Power Law Cal. : ppt = $944 * (\text{voltage})^{.891}$

PERIOD # 1

Time : 18 : 30 : 4 to 19 : 0 : 3 (1800 s)
Maximum Concentration (ppt) : 4130
Peak (99 perc) to mean ratio : 5.805866
Plume intermittency : .705
Mean Concentration (ppt) : 469.1217 665.4208
Concentration fluc. intensity (%) : 145.3476 109.2876
Skewness : 1.892949 1.496125
Kurtosis : 6.802002 5.326768
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 180 2724
Percentile: 29.50 31.11 40.72 62.89 78.00 91.83 99.00 99.39 99.61
Conc. (ppt): 2 12 64 340 781 1796 2724 3217 3800

**PERIOD # 2**

Time : 19 : 0 : 4 to 19 : 30 : 3 (1800 s)
Maximum Concentration (ppt) : 5940
Peak (99 perc) to mean ratio : 7.310197
Plume intermittency : .4811111
Mean Concentration (ppt) : 735.7955 1529.367
Concentration fluc. intensity (%) : 189.27 109.7543
Skewness : 1.813371 .7194692
Kurtosis : 5.028648 2.161265
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 5379
Percentile: 51.89 55.61 68.61 73.89 77.78 84.89 93.39 98.33 99.06
Conc. (ppt): 2 14 77 438 1045 2491 3847 4577 5446

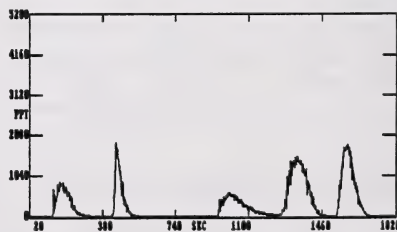


STATIONARY STATISTICS (T26C15)

Scans : 20 to 16050
Date : 12-15-1988 Start Time : 20:05:09
Location: F4 on 700 m C Source : C Ground
Abs. Coordinates: (North 1803.6 m, East 1664.1 m)
Transport from 266.78 deg
Power Law Cal. : ppt = $944 * (\text{voltage})^{.891}$

PERIOD # 1

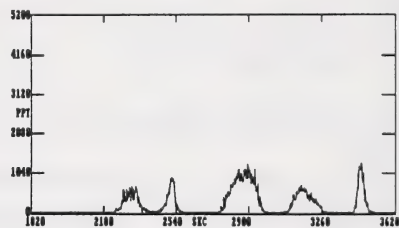
Time : 20 : 5 : 20 to 20 : 35 : 19 (1800 s)
Maximum Concentration (ppt) : 1892
Peak (99 perc) to mean ratio : 6.437556
Plume intermittency : .5855556
Mean Concentration (ppt) : 270.1544 461.3643
Concentration fluc. intensity (%) : 161.3501 105.3557
Skewness : 1.853247 1.162997
Kurtosis : 5.570326 3.302294
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 36 1739
Percentile: 41.44 42.17 52.33 66.67 75.89 89.50 93.78 97.33 99.11
Conc. (ppt): 2 10 43 197 418 890 1297 1509 1754



PERIOD # 2

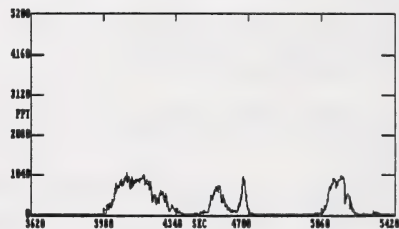
Time : 20 : 35 : 20 to 21 : 5 : 19 (1800 s)
 Maximum Concentration (ppt) : 1291
 Peak (99 perc) to mean ratio : 6.074878
 Plume intermittency : .5222222

		Total	Conditional
Mean Concentration (ppt)		189.3067	362.5021
Concentration fluc. intensity (%)		160.5767	93.20764
Skewness		1.630342	.7618794
Kurtosis		4.60329	2.477298
Percentile:	50 99 (Interpolated)		
Conc. (ppt) :	14 1150		
Percentile:	47.78 48.00 58.78 68.28 75.06 88.56 94.94 97.83 99.56		
Conc. (ppt):	2 9 36 151 308 631 902 1041 1202		

**PERIOD # 3**

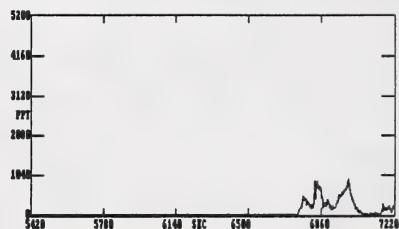
Time : 21 : 5 : 20 to 21 : 35 : 19 (1800 s)
 Maximum Concentration (ppt) : 1063
 Peak (99 perc) to mean ratio : 4.641307
 Plume intermittency : .5222222

		Total	Conditional
Mean Concentration (ppt)		211.8344	405.6404
Concentration fluc. intensity (%)		149.3624	82.90077
Skewness		1.280115	.3500737
Kurtosis		3.1052	1.605716
Percentile:	50 99 (Interpolated)		
Conc. (ppt) :	14 983		
Percentile:	47.78 48.33 54.78 65.39 71.56 80.83 87.56 92.50 99.44		
Conc. (ppt):	2 8 33 131 264 530 750 862 991		

**PERIOD # 4**

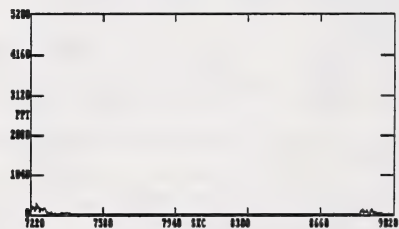
Time : 21 : 35 : 20 to 22 : 5 : 19 (1800 s)
 Maximum Concentration (ppt) : 928
 Peak (99 perc) to mean ratio : 10.39167
 Plume intermittency : .2955556

		Total	Conditional
Mean Concentration (ppt)		74.08222	250.6541
Concentration fluc. intensity (%)		230.4008	92.97842
Skewness		2.691617	.9463542
Kurtosis		9.913781	2.984789
Percentile:	50 99 (Interpolated)		
Conc. (ppt) :	0 770		
Percentile:	70.44 70.61 76.44 81.11 87.72 94.61 97.39 98.89 99.78		
Conc. (ppt):	2 8 30 119 237 469 659 756 867		

**PERIOD # 5**

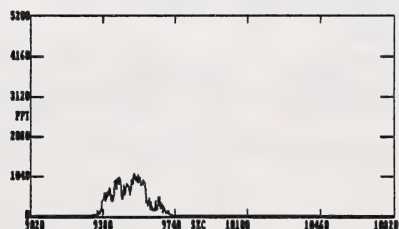
Time : 22 : 5 : 20 to 22 : 35 : 19 (1800 s)
 Maximum Concentration (ppt) : 302
 Peak (99 perc) to mean ratio : 16.07797
 Plume intermittency : .155

		Total	Conditional
Mean Concentration (ppt)		11.31278	72.98566
Concentration fluc. intensity (%)		310.1489	80.37296
Skewness		3.902073	1.109785
Kurtosis		19.59949	3.655935
Percentile:	50 99 (Interpolated)		
Conc. (ppt) :	0 182		
Percentile:	84.50 84.50 86.83 92.89 95.33 98.83 99.67 99.89 99.94		
Conc. (ppt):	2 6 17 54 96 171 227 254 285		

**PERIOD # 6**

Time : 22 : 35 : 20 to 23 : 5 : 19 (1800 s)
 Maximum Concentration (ppt) : 1097
 Peak (99 perc) to mean ratio : 9.274155
 Plume intermittency : .2383333

		Total	Conditional
Mean Concentration (ppt)		109.1122	457.8135
Concentration fluc. intensity (%)		235.8031	75.06931
Skewness		2.36645	.1801301
Kurtosis		7.298951	1.619339
Percentile:	50 99 (Interpolated)		
Conc. (ppt) :	0 1012		
Percentile:	76.17 76.17 79.67 82.28 85.56 89.89 93.78 96.50 99.22		
Conc. (ppt):	2 8 33 134 270 545 773 889 1023		

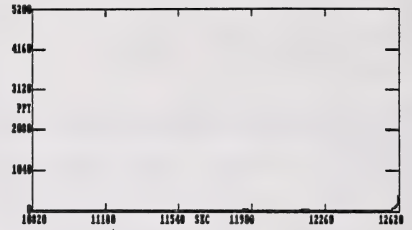


PERIOD # 7

Time : 23 : 5 : 20 to 23 : 35 : 19 (1800 s)
 Maximum Concentration (ppt) : 397
 Peak (99 perc) to mean ratio : 25.73467
 Plume intermittency : 7.222223E-02

	Total	Conditional
Mean Concentration (ppt)	2.795556	38.70769
Concentration fluc. intensity (%)	677.7454	154.5856
Skewness	13.01869	3.707323
Kurtosis	216.6016	18.95727

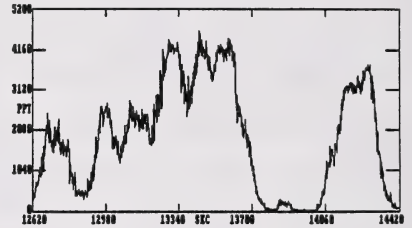
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 72
 Percentile: 92.78 92.78 97.17 98.94 99.44 99.83 99.89 99.89 99.94
 Conc. (ppt): 2 6 20 66 120 218 294 332 374

**PERIOD # 8**

Time : 23 : 35 : 20 to 0 : 5 : 19 (1800 s)
 Maximum Concentration (ppt) : 4636
 Peak (99 perc) to mean ratio : 2.355414
 Plume intermittency : .9405556

	Total	Conditional
Mean Concentration (ppt)	1908.482	2029.101
Concentration fluc. intensity (%)	73.1171	66.5873
Skewness	.1597092	9.664819E-02
Kurtosis	1.774151	1.812143

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 1843 4495
 Percentile: 5.94 6.89 10.83 21.11 30.61 52.94 73.17 83.72 97.33
 Conc. (ppt): 2 13 68 368 857 1993 3040 3599 4261

**STATIONARY STATISTICS (T26C17)**

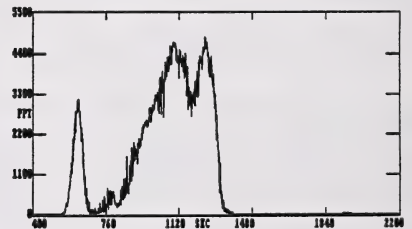
Scans : 400 to 18100
 Date : 12-16-1988 Start Time : 00:34:54
 Location: F4 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1803.6 m, East 1664.1 m)
 Transport from 266.78 deg
 Power Law Cal. : ppt = 944 *(voltage)^ .891

PERIOD # 1

Time : 0 : 41 : 25 to 1 : 11 : 24 (1800 s)
 Maximum Concentration (ppt) : 4853
 Peak (99 perc) to mean ratio : 4.911907
 Plume intermittency : .5161111

	Total	Conditional
Mean Concentration (ppt)	959.065	1858.253
Concentration fluc. intensity (%)	156.6486	88.46384
Skewness	1.291168	.2912326
Kurtosis	3.076856	1.528376

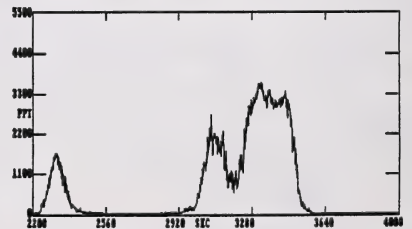
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 10 4711
 Percentile: 48.39 50.72 57.06 65.50 71.06 76.94 85.28 90.00 97.22
 Conc. (ppt): 2 13 70 380 889 2077 3175 3762 4458

**PERIOD # 2**

Time : 1 : 11 : 25 to 1 : 41 : 24 (1800 s)
 Maximum Concentration (ppt) : 3602
 Peak (99 perc) to mean ratio : 4.953571
 Plume intermittency : .6494445

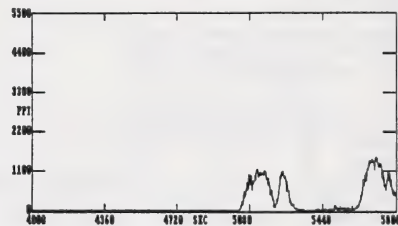
	Total	Conditional
Mean Concentration (ppt)	701.4233	1080.036
Concentration fluc. intensity (%)	153.1321	108.2754
Skewness	1.394898	.7755643
Kurtosis	3.526322	2.150371

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 49 3475
 Percentile: 35.06 39.44 53.22 63.89 68.28 80.67 87.39 89.28 97.78
 Conc. (ppt): 2 12 60 309 700 1588 2392 2817 3319

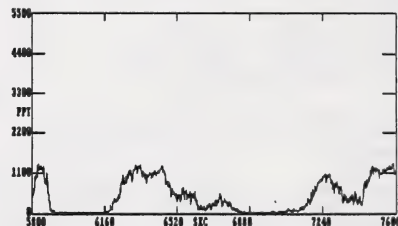


PERIOD # 3

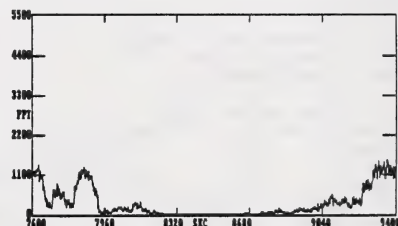
Time : 1 : 41 : 25 to 2 : 11 : 24 (1800 s)
 Maximum Concentration (ppt) : 1462
 Peak (99 perc) to mean ratio : 6.934499
 Plume intermittency : .4105555
 Total Conditional
 Mean Concentration (ppt) : 199.2333 485.2774
 Concentration fluc. intensity (%) : 189.9847 94.46815
 Skewness : 1.786394 .4522177
 Kurtosis : 4.777555 1.740785
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 14 1382
 Percentile: 58.94 59.67 69.00 76.78 79.33 84.83 93.44 96.39 98.72
 Conc. (ppt): 2 9 38 164 340 705 1016 1175 1359

**PERIOD # 4**

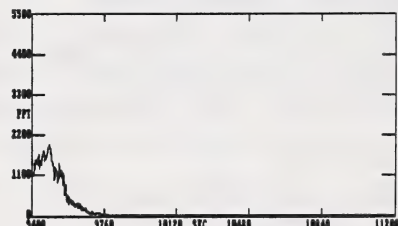
Time : 2 : 11 : 25 to 2 : 41 : 24 (1800 s)
 Maximum Concentration (ppt) : 1351
 Peak (99 perc) to mean ratio : 2.87445
 Plume intermittency : .7916667
 Total Conditional
 Mean Concentration (ppt) : 453.6589 573.0428
 Concentration fluc. intensity (%) : 97.57858 73.85516
 Skewness : .5382293 .2334105
 Kurtosis : 1.784754 1.603833
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 323 1304
 Percentile: 20.83 20.83 27.61 40.17 49.83 67.44 77.61 85.94 98.00
 Conc. (ppt): 2 9 37 155 320 657 942 1088 1257

**PERIOD # 5**

Time : 2 : 41 : 25 to 3 : 11 : 24 (1800 s)
 Maximum Concentration (ppt) : 1528
 Peak (99 perc) to mean ratio : 4.584126
 Plume intermittency : .7677778
 Total Conditional
 Mean Concentration (ppt) : 302.7189 394.2793
 Concentration fluc. intensity (%) : 130.7312 103.9211
 Skewness : 1.397921 1.080938
 Kurtosis : 3.670458 2.801901
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 132 1388
 Percentile: 23.22 24.11 32.89 56.78 72.22 83.61 89.61 95.94 99.61
 Conc. (ppt): 2 9 39 169 353 734 1059 1226 1420

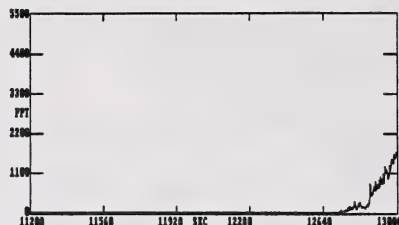
**PERIOD # 6**

Time : 3 : 11 : 25 to 3 : 41 : 24 (1800 s)
 Maximum Concentration (ppt) : 1933
 Peak (99 perc) to mean ratio : 12.06602
 Plume intermittency : .2344444
 Total Conditional
 Mean Concentration (ppt) : 147.2233 627.9668
 Concentration fluc. intensity (%) : 275.4145 100.6369
 Skewness : 2.887875 .572042
 Kurtosis : 10.0745 1.724337
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1776
 Percentile: 76.56 76.56 81.61 86.00 89.94 91.28 94.72 97.33 99.11
 Conc. (ppt): 2 10 44 200 426 907 1324 1540 1792

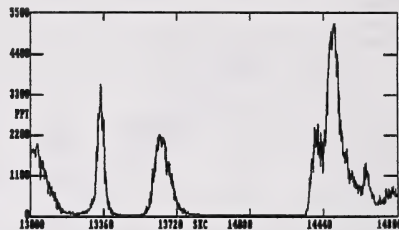


PERIOD # 7

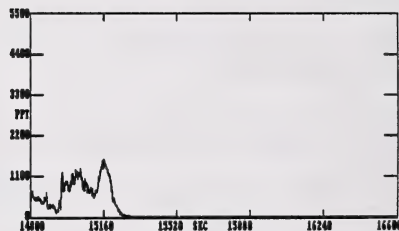
Time : 3 : 41 : 25 to 4 : 11 : 24 (1800 s)
 Maximum Concentration (ppt) : 1659
 Peak (99 perc) to mean ratio : 17.41343
 Plume intermittency : .16
 Mean Concentration (ppt) : 84.10944 525.684
 Concentration fluc. intensity (%) : 326.2771 92.91439
 Skewness : 3.752869 .7359272
 Kurtosis : 16.81568 2.23559
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1465
 Percentile: 84.00 84.00 85.94 90.50 92.67 95.33 97.67 98.50 99.28
 Conc. (ppt): 2 9 41 179 377 790 1145 1328 1540

**PERIOD # 8**

Time : 4 : 11 : 25 to 4 : 41 : 24 (1800 s)
 Maximum Concentration (ppt) : 5236
 Peak (99 perc) to mean ratio : 7.504108
 Plume intermittency : .6655555
 Mean Concentration (ppt) : 652.9361 981.0392
 Concentration fluc. intensity (%) : 154.6434 112.1251
 Skewness : 2.2425 1.789783
 Kurtosis : 8.618686 6.454508
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 190 4900
 Percentile: 33.44 35.61 44.33 60.22 74.28 93.94 96.94 97.44 98.72
 Conc. (ppt): 2 13 72 401 944 2224 3412 4050 4806

**PERIOD # 9**

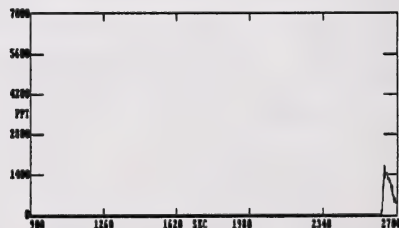
Time : 4 : 41 : 25 to 5 : 11 : 24 (1800 s)
 Maximum Concentration (ppt) : 1545
 Peak (99 perc) to mean ratio : 7.766803
 Plume intermittency : .3005556
 Mean Concentration (ppt) : 177.0056 588.9279
 Concentration fluc. intensity (%) : 200.9921 71.74496
 Skewness : 1.978907 .2498536
 Kurtosis : 5.754803 1.971081
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 20 1375
 Percentile: 69.94 72.00 74.22 76.78 80.44 88.78 95.06 97.89 99.50
 Conc. (ppt): 2 9 39 171 356 741 1070 1240 1436

**STATIONARY STATISTICS (T26C19)**

Scans : 900 to 10700
 Date : 12-16-1988 Start Time : 05:46:31
 Location: F4 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1803.6 m, East 1664.1 m)
 Transport from 266.78 deg
 Power Law Cal. : ppt = 944 *(voltage)^ .891

PERIOD # 1

Time : 6 : 1 : 22 to 6 : 31 : 21 (1800 s)
 Maximum Concentration (ppt) : 1719
 Peak (99 perc) to mean ratio : 33.54577
 Plume intermittency : 4.444445E-02
 Mean Concentration (ppt) : 39.36 885.6
 Concentration fluc. intensity (%) : 529.0687 53.71269
 Skewness : 5.580254 -.4211943
 Kurtosis : 33.93009 2.030437
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 10 1320
 Percentile: 95.56 95.72 96.00 96.11 96.22 97.33 98.44 99.22 99.89
 Conc. (ppt): 2 9 41 184 387 816 1184 1375 1596

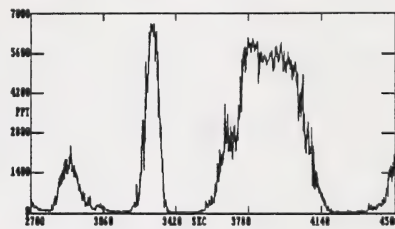


PERIOD # 2

Time : 6 : 31 : 22 to 7 : 1 : 21 (1800 s)
 Maximum Concentration (ppt) : 6668
 Peak (99 perc) to mean ratio : 3.89874
 Plume intermittency : .8894445

	Total	Conditional
Mean Concentration (ppt)	1633.98	1837.079
Concentration fluc. intensity (%)	128.3602	116.4012
Skewness	1.079907	.9152855
Kurtosis	2.591372	2.252048

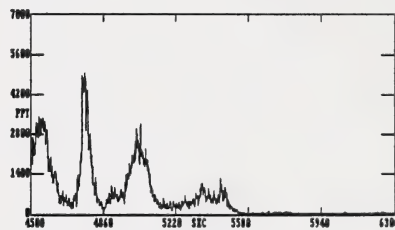
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 439 6370
 Percentile: 11.06 13.44 29.39 52.11 60.56 75.39 80.67 84.22 98.11
 Conc. (ppt): 2 14 82 475 1146 2764 4293 5120 6106

**PERIOD # 3**

Time : 7 : 1 : 22 to 7 : 31 : 21 (1800 s)
 Maximum Concentration (ppt) : 4922
 Peak (99 perc) to mean ratio : 7.09191
 Plume intermittency : .7133333

	Total	Conditional
Mean Concentration (ppt)	601.8683	843.7407
Concentration fluc. intensity (%)	152.5262	117.1687
Skewness	2.160116	1.766798
Kurtosis	7.680338	5.858558

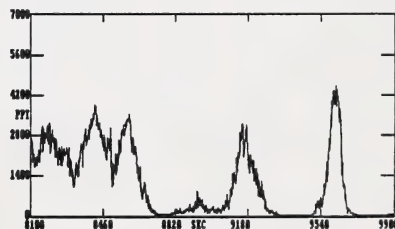
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 222 4268
 Percentile: 28.67 32.50 42.56 58.00 79.83 91.22 97.94 98.50 99.28
 Conc. (ppt): 2 13 70 384 899 2103 3218 3814 4521

**PERIOD # 5**

Time : 8 : 1 : 22 to 8 : 31 : 21 (1800 s)
 Maximum Concentration (ppt) : 4492
 Peak (99 perc) to mean ratio : 3.626108
 Plume intermittency : .8311111

	Total	Conditional
Mean Concentration (ppt)	1130.857	1360.656
Concentration fluc. intensity (%)	106.6682	88.1339
Skewness	.7060584	.4531193
Kurtosis	2.172632	1.946565

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 550 4101
 Percentile: 16.89 17.89 26.11 47.00 54.50 70.00 90.44 96.67 99.11
 Conc. (ppt): 2 12 67 360 836 1937 2950 3490 4130





Field Test 27
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:32 Dec 16 88
Test Stop Time: 08:04 Dec 17 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 1

Analyser B Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 10

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 7

STATIONARY STATISTICS (T27A04)

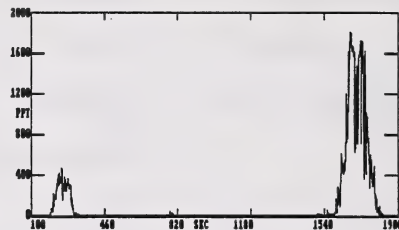
Scans : 100 to 9850
Date : 12-17-1988 Start Time : 05:21:07
Location: J8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1111.6 m, East 1218.3 m)
Transport from 338.81 deg
Power Law Cal. : Time = 23 , ppt = $2936.4 * (\text{voltage})^{1.983}$
For volt > .53 : ppt = $1481.5 * (\text{voltage})^{.907}$
At time = 32.86 , ppt = $1122.2 * (\text{voltage})^{1.851}$
For volt > .904 : ppt = $1038.9 * (\text{voltage})^{1.089}$

PERIOD # 1

Time : 5 : 22 : 39 to 5 : 52 : 38 (1800 s)
Maximum Concentration (ppt) : 1807
Peak (99 perc) to mean ratio : 14.7659
Plume intermittency : .3188889

	Total	Conditional
Mean Concentration (ppt)	111.7378	350.3972
Concentration fluc. intensity (%)	296.2301	145.5064
Skewness	3.618863	1.620834
Kurtosis	15.78011	4.388064

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1650
Percentile: 73.00 78.94 82.28 86.28 91.22 95.39 96.33 96.83 99.28
Conc. (ppt): 2 9 43 190 403 854 1242 1443 1676

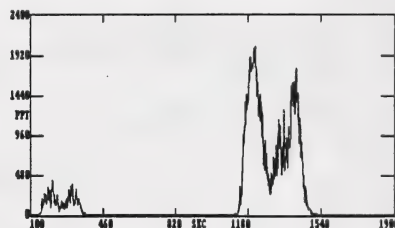


STATIONARY STATISTICS (T27B04)

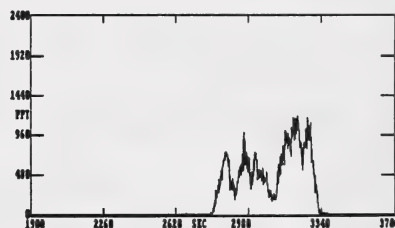
Scans : 100 to 6900
Date : 12-16-1988 Start Time : 22:05:38
Location: D9 on 700 m C Source : C Ground
Abs. Coordinates: (North 2090.5 m, East 1584.5 m)
Transport from 242.22 deg
Power Law Cal. : $ppt = 486.9 * (voltage)^{1.108}$

PERIOD # 1

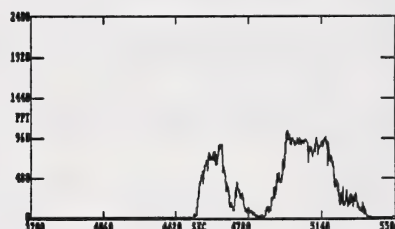
Time : 22 : 7 : 10 to 22 : 37 : 9 (1800 s)
Maximum Concentration (ppt) : 2020
Peak (99 perc) to mean ratio : 9.014558
Plume intermittency : .3616667
Total Conditional
Mean Concentration (ppt) : 203.3483 562.2535
Concentration fluc. intensity (%) : 212.2611 99.55638
Skewness : 2.414188 .9579893
Kurtosis : 7.98144 2.678597
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1833
Percentile: 63.83 65.56 68.94 78.61 84.33 91.50 95.11 97.39 99.28
Conc. (ppt): 2 10 45 206 441 944 1381 1608 1872

**PERIOD # 2**

Time : 22 : 37 : 10 to 23 : 7 : 9 (1800 s)
Maximum Concentration (ppt) : 1183
Peak (99 perc) to mean ratio : 6.513603
Plume intermittency : .3183333
Total Conditional
Mean Concentration (ppt) : 167.5383 526.2984
Concentration fluc. intensity (%) : 177.7244 56.90514
Skewness : 1.638485 .1203123
Kurtosis : 4.458831 2.229723
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1091
Percentile: 68.17 68.44 70.44 71.78 75.83 86.61 93.83 96.94 99.17
Conc. (ppt): 2 8 34 142 287 583 830 957 1102

**PERIOD # 3**

Time : 23 : 7 : 10 to 23 : 37 : 9 (1800 s)
Maximum Concentration (ppt) : 1055
Peak (99 perc) to mean ratio : 4.443792
Plume intermittency : .485
Total Conditional
Mean Concentration (ppt) : 220.3522 454.3345
Concentration fluc. intensity (%) : 147.6923 73.68384
Skewness : 1.230174 .1948726
Kurtosis : 2.938428 1.497313
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 979
Percentile: 51.50 51.94 55.94 63.22 71.39 79.50 85.72 90.56 99.33
Conc. (ppt): 2 8 32 131 262 526 745 856 984



STATIONARY STATISTICS (T27B05)

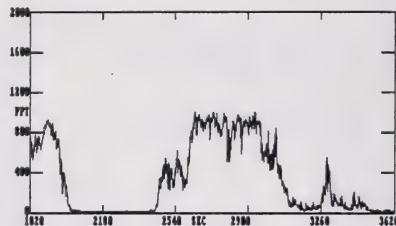
Scans : 20 to 14600
Date : 12-17-1988 Start Time : 00:01:42
Location: D9 on 700 m C Source : C Ground
Abs. Coordinates: (North 2090.5 m, East 1584.5 m)
Transport from 242.22 deg
Power Law Cal. : ppt = 486.9 *(voltage)^ 1.108

PERIOD # 2

Time : 0 : 31 : 54 to 1 : 1 : 53 (1800 s)
Maximum Concentration (ppt) : 1004
Peak (99 perc) to mean ratio : 2.996444
Plume intermittency : .7888889

	Total	Conditional
Mean Concentration (ppt)	328.9611	416.993
Concentration fluc. intensity (%)	107.4954	83.69409
Skewness	.6002498	.2428336
Kurtosis	1.721026	1.457358

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 131 986
Percentile: 21.11 22.67 32.72 49.78 55.39 67.17 76.33 81.89 96.33
Conc. (ppt): 2 8 32 126 252 503 711 816 937

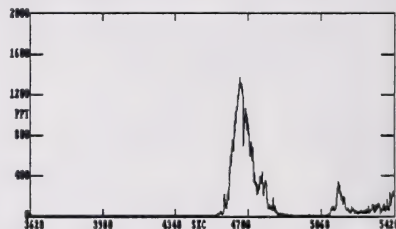


PERIOD # 3

Time : 1 : 1 : 54 to 1 : 31 : 53 (1800 s)
Maximum Concentration (ppt) : 1367
Peak (99 perc) to mean ratio : 13.16336
Plume intermittency : .38

	Total	Conditional
Mean Concentration (ppt)	91.41833	240.5746
Concentration fluc. intensity (%)	255.5191	136.4192
Skewness	3.438446	1.84062
Kurtosis	14.80353	5.360152

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1203
Percentile: 62.00 63.33 70.72 85.94 91.78 94.83 97.44 98.50 99.33
Conc. (ppt): 2 9 37 157 323 664 953 1101 1272

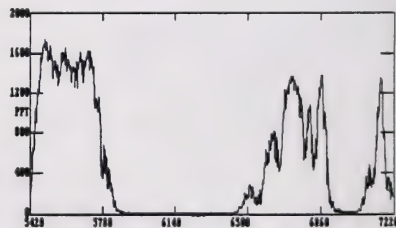


PERIOD # 4

Time : 1 : 31 : 54 to 2 : 1 : 53 (1800 s)
Maximum Concentration (ppt) : 1733
Peak (99 perc) to mean ratio : 3.383165
Plume intermittency : .6838889

	Total	Conditional
Mean Concentration (ppt)	495.6772	724.7921
Concentration fluc. intensity (%)	116.7532	78.49321
Skewness	.7660711	.2113283
Kurtosis	2.000316	1.525646

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 189 1677
Percentile: 31.61 33.83 41.17 49.83 58.28 70.89 79.39 86.61 97.78
Conc. (ppt): 2 9 42 185 390 822 1194 1386 1608

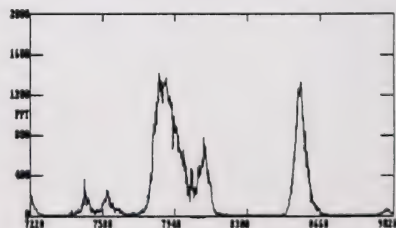


PERIOD # 5

Time : 2 : 1 : 54 to 2 : 31 : 53 (1800 s)
Maximum Concentration (ppt) : 1413
Peak (99 perc) to mean ratio : 7.174511
Plume intermittency : .6133333

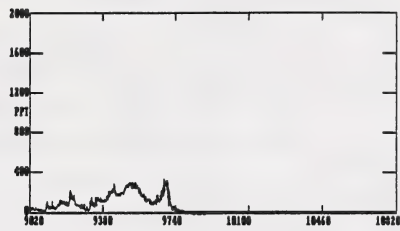
	Total	Conditional
Mean Concentration (ppt)	183.8928	299.8252
Concentration fluc. intensity (%)	182.6662	128.8347
Skewness	2.115624	1.409037
Kurtosis	6.442104	3.734263

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 25 1319
Percentile: 38.67 41.00 57.17 74.17 81.50 89.44 93.89 95.50 98.94
Conc. (ppt): 2 9 38 160 331 684 983 1137 1314



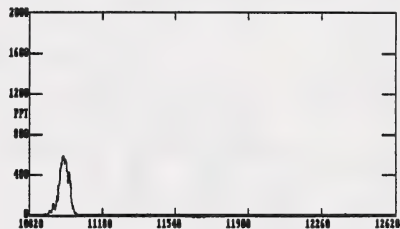
PERIOD # 6

Time : 2 : 31 : 54 to 3 : 1 : 53 (1800 s)
Maximum Concentration (ppt) : 322
Peak (99 perc) to mean ratio : 6.088173
Plume intermittency : .4194444
Total Conditional
Mean Concentration (ppt) : 47.36945 112.9338
Concentration fluc. intensity (%) : 160.3243 70.53928
Skewness : 1.610716 .5915219
Kurtosis : 4.57739 2.37092
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 288
Percentile: 58.06 58.78 61.72 70.72 79.50 91.11 95.78 98.06 99.83
Conc. (ppt): 2 6 18 57 101 181 241 271 304



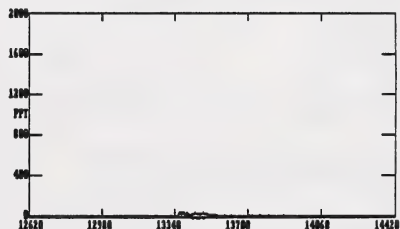
PERIOD # 7

Time : 3 : 1 : 54 to 3 : 31 : 53 (1800 s)
Maximum Concentration (ppt) : 592
Peak (99 perc) to mean ratio : 27.53688
Plume intermittency : 9.388889E-02
Total Conditional
Mean Concentration (ppt) : 18.89667 201.2663
Concentration fluc. intensity (%) : 453.4793 101.2252
Skewness : 5.090914 .6397284
Kurtosis : 28.64924 1.810049
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 520
Percentile: 90.61 91.89 92.89 95.22 96.11 97.00 97.89 98.50 99.56
Conc. (ppt): 2 7 24 87 165 313 430 489 555



PERIOD # 8

Time : 3 : 31 : 54 to 4 : 1 : 53 (1800 s)
Maximum Concentration (ppt) : 40
Peak (99 perc) to mean ratio : 15.17775
Plume intermittency : .1255556
Total Conditional
Mean Concentration (ppt) : 2.043889 16.27876
Concentration fluc. intensity (%) : 310.106 57.70358
Skewness : 3.441095 .4651937
Kurtosis : 14.55676 2.146724
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 31
Percentile: 87.44 87.44 90.22 93.17 94.94 98.17 99.56 99.67 99.83
Conc. (ppt): 1 3 6 13 19 28 33 36 39



STATIONARY STATISTICS (T27C29)

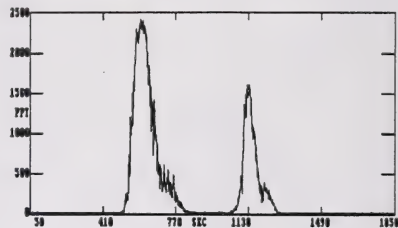
Scans : 50 to 5950
Date : 12-16-1988 Start Time : 22:26:52
Location: E5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1980 m, East 1631.1 m)
Transport from 252.04 deg
Power Law Cal. : ppt = 937.2 *(voltage)^ .914

PERIOD # 1

Time : 22 : 27 : 33 to 22 : 57 : 32 (1800 s)
Maximum Concentration (ppt) : 2415
Peak (99 perc) to mean ratio : 10.43526
Plume intermittency : .3233333

	Total	Conditional
Mean Concentration (ppt)	222.99	689.6598
Concentration fluc. intensity (%)	233.8142	104.4493
Skewness	2.741044	1.061128
Kurtosis	9.792517	2.849051

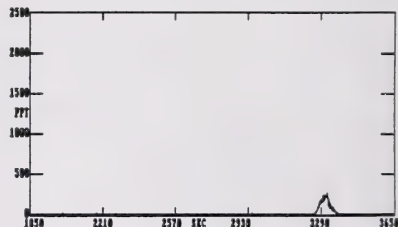
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2327
Percentile: 67.67 68.39 72.56 79.28 87.00 91.83 95.94 96.67 97.94
Conc. (ppt): 2 10 49 233 509 1108 1636 1912 2234

**PERIOD # 2**

Time : 22 : 57 : 33 to 23 : 27 : 32 (1800 s)
Maximum Concentration (ppt) : 259
Peak (99 perc) to mean ratio : 29.83345
Plume intermittency : 5.888889E-02

	Total	Conditional
Mean Concentration (ppt)	7.193889	122.1604
Concentration fluc. intensity (%)	474.2067	61.89791
Skewness	5.290155	.1869783
Kurtosis	31.4032	1.739991

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 215
Percentile: 94.11 94.11 94.56 95.39 96.39 97.67 98.78 99.06 99.78
Conc. (ppt): 2 5 16 49 85 149 196 219 245



STATIONARY STATISTICS (T27C30)

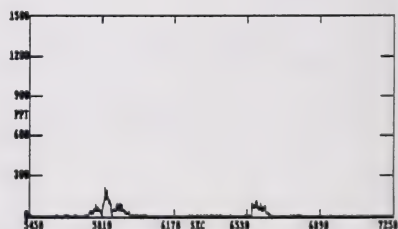
Scans : 50 to 15750
Date : 12-17-1988 Start Time : 00:08:02
Location: E5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1980 m, East 1631.1 m)
Transport from 252.04 deg
Power Law Cal. : ppt = 937.2 *(voltage)^ .914

PERIOD # 4

Time : 1 : 38 : 43 to 2 : 8 : 42 (1800 s)
Maximum Concentration (ppt) : 208
Peak (99 perc) to mean ratio : 13.24651
Plume intermittency : .1655556

	Total	Conditional
Mean Concentration (ppt)	9.395555	56.75168
Concentration fluc. intensity (%)	271.0481	61.79351
Skewness	3.303657	1.225072
Kurtosis	15.15305	4.541484

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 124
Percentile: 83.44 83.44 84.06 90.17 95.72 98.94 99.78 99.89 99.94
Conc. (ppt): 2 5 14 42 72 122 159 177 197

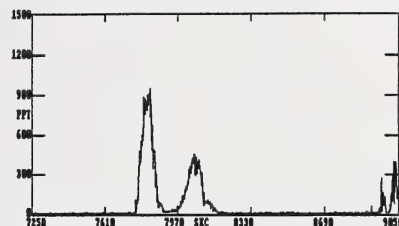


PERIOD # 5

Time : 2 : 8 : 43 to 2 : 38 : 42 (1800 s)
 Maximum Concentration (ppt) : 949
 Peak (99 perc) to mean ratio : 14.20662
 Plume intermittency : .2827778

	Total	Conditional
Mean Concentration (ppt)	58.94889	208.4637
Concentration fluc. intensity (%)	266.0044	113.299
Skewness	3.455677	1.462857
Kurtosis	15.40985	4.30845

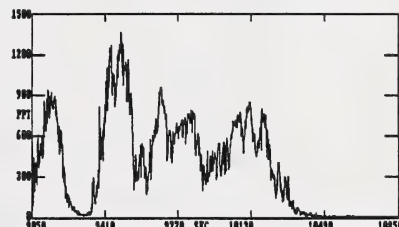
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 25 837
 Percentile: 71.72 71.72 78.89 87.67 90.83 96.61 97.89 98.11 99.67
 Conc. (ppt): 2 8 31 121 241 478 674 773 886

**PERIOD # 6**

Time : 2 : 38 : 43 to 3 : 8 : 42 (1800 s)
 Maximum Concentration (ppt) : 1365
 Peak (99 perc) to mean ratio : 3.275398
 Plume intermittency : .78

	Total	Conditional
Mean Concentration (ppt)	375.3739	481.2486
Concentration fluc. intensity (%)	90.84534	65.09412
Skewness	.4898602	.242874
Kurtosis	2.242093	2.428118

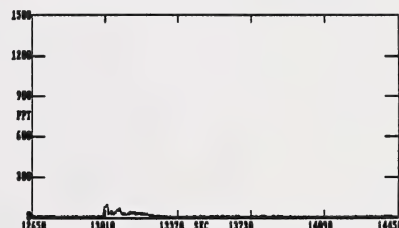
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 344 1229
 Percentile: 22.00 22.00 30.50 37.89 48.17 77.39 94.44 97.39 99.50
 Conc. (ppt): 2 9 37 157 322 663 951 1099 1270

**PERIOD # 8**

Time : 3 : 38 : 43 to 4 : 8 : 42 (1800 s)
 Maximum Concentration (ppt) : 92
 Peak (99 perc) to mean ratio : 14.78529
 Plume intermittency : .14

	Total	Conditional
Mean Concentration (ppt)	4.461111	31.86508
Concentration fluc. intensity (%)	288.3077	55.10888
Skewness	3.585653	1.682172
Kurtosis	17.85656	5.638005

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 66
 Percentile: 86.00 86.00 86.00 90.78 96.78 98.83 99.17 99.44 99.72
 Conc. (ppt): 2 4 10 24 37 59 73 80 88

**STATIONARY STATISTICS (T27C32)**

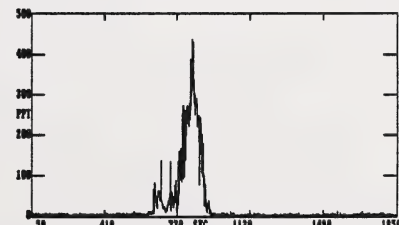
Scans : 50 to 8850
 Date : 12-17-1988 Start Time : 05:39:02
 Location: I6 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1234.6 m, East 1422.9 m)
 Transport from 319.16 deg
 Power Law Cal. : ppt = 937.2 *(voltage)^ .914

PERIOD # 1

Time : 5 : 39 : 43 to 6 : 9 : 42 (1800 s)
 Maximum Concentration (ppt) : 437
 Peak (99 perc) to mean ratio : 17.10828
 Plume intermittency : .1477778

	Total	Conditional
Mean Concentration (ppt)	18.21667	123.2707
Concentration fluc. intensity (%)	328.92	86.40381
Skewness	3.880938	.7859052
Kurtosis	18.03741	2.336354

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 312
 Percentile: 85.22 85.22 86.67 92.56 94.28 96.72 99.33 99.78 99.89
 Conc. (ppt): 2 6 21 71 130 238 322 364 411



Field Test 28
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:13 Dec 17 88
Test Stop Time: 08:22 Dec 18 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 16

Analyser B Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 10

Analyser C Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 6

STATIONARY STATISTICS (T28A02)

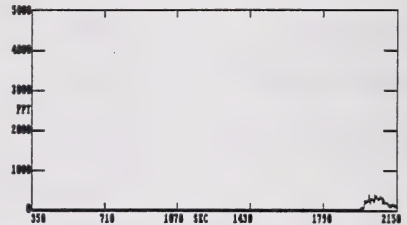
Scans : 350 to 13150
Date : 12-17-1988 Start Time : 17:21:33
Location: F5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1783.6 m, East 1664.9 m)
Transport from 268.41 deg
Power Law Cal. : ppt = 1023.6 *(voltage)^ 1.855
For volt > 1.0125 : ppt = 1033.6 *(voltage)^ 1.072

PERIOD # 1

Time : 17 : 27 : 15 to 17 : 57 : 14 (1800 s)
Maximum Concentration (ppt) : 367
Peak (99 perc) to mean ratio : 16.65669
Plume intermittency : .1027778

	Total	Conditional
Mean Concentration (ppt)	18.34778	178.5189
Concentration fluc. intensity (%)	339.2596	53.45278
Skewness	3.551868	-.1100333
Kurtosis	14.79026	1.940741

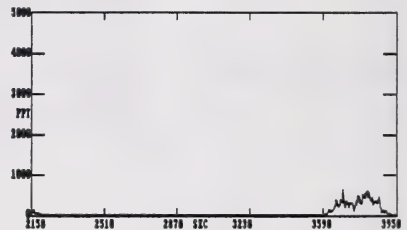
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 306
Percentile: 89.72 89.83 90.39 91.28 92.67 95.39 98.00 99.06 99.89
Conc. (ppt): 2 6 19 62 113 203 273 307 346

**PERIOD # 2**

Time : 17 : 57 : 15 to 18 : 27 : 14 (1800 s)
Maximum Concentration (ppt) : 612
Peak (99 perc) to mean ratio : 10.28457
Plume intermittency : .2527778

	Total	Conditional
Mean Concentration (ppt)	48.51445	191.9253
Concentration fluc. intensity (%)	246.0252	88.47603
Skewness	2.580505	.4781495
Kurtosis	8.72737	2.004574

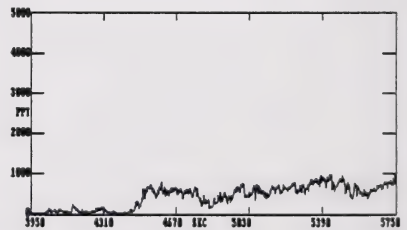
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 499
Percentile: 75.56 78.72 81.50 85.06 87.50 93.72 97.44 99.17 99.72
Conc. (ppt): 2 7 25 89 170 322 444 505 574

**PERIOD # 3**

Time : 18 : 27 : 15 to 18 : 57 : 14 (1800 s)
Maximum Concentration (ppt) : 961
Peak (99 perc) to mean ratio : 2.118777
Plume intermittency : .9977778

	Total	Conditional
Mean Concentration (ppt)	421.6317	422.5707
Concentration fluc. intensity (%)	65.63355	65.39088
Skewness	-.2395782	-.2434612
Kurtosis	1.720325	1.725546

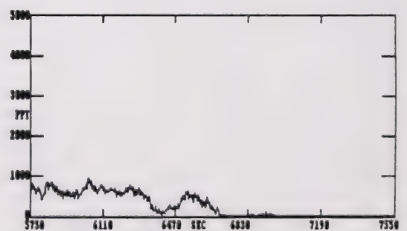
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 498 893
Percentile: 1.28 5.22 11.72 26.78 31.11 47.56 82.28 92.61 99.22
Conc. (ppt): 2 8 31 122 243 484 682 782 897

**PERIOD # 4**

Time : 18 : 57 : 15 to 19 : 27 : 14 (1800 s)
Maximum Concentration (ppt) : 926
Peak (99 perc) to mean ratio : 3.233913
Plume intermittency : .6477778

	Total	Conditional
Mean Concentration (ppt)	263.9695	407.5
Concentration fluc. intensity (%)	110.0079	65.70396
Skewness	.4993137	-.257829
Kurtosis	1.603379	1.657186

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 113 854
Percentile: 37.94 40.39 45.22 50.39 57.56 65.61 87.72 95.56 99.39
Conc. (ppt): 2 8 30 119 236 468 658 754 865

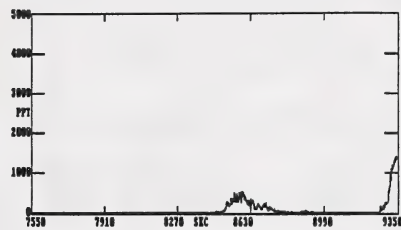


PERIOD # 5

Time : 19 : 27 : 15 to 19 : 57 : 14 (1800 s)
 Maximum Concentration (ppt) : 1398
 Peak (99 perc) to mean ratio : 18.9131
 Plume intermittency : .3572222

	Total	Conditional
Mean Concentration (ppt)	64.53833	180.6672
Concentration fluc. intensity (%)	296.3616	157.9466
Skewness	4.698413	2.693161
Kurtosis	27.87778	10.34159

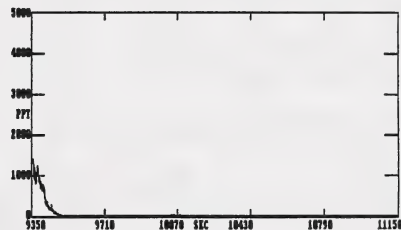
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1221
 Percentile: 66.67 71.39 80.11 87.44 94.67 97.94 98.17 98.67 99.28
 Conc. (ppt): 2 9 37 159 328 678 973 1125 1300

**PERIOD # 6**

Time : 19 : 57 : 15 to 20 : 27 : 14 (1800 s)
 Maximum Concentration (ppt) : 1403
 Peak (99 perc) to mean ratio : 27.92807
 Plume intermittency : .1972222

	Total	Conditional
Mean Concentration (ppt)	40.99389	207.8563
Concentration fluc. intensity (%)	453.6276	180.4334
Skewness	5.219847	1.808887
Kurtosis	30.51149	4.903909

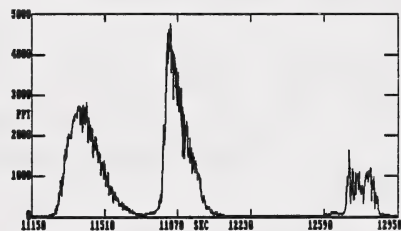
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1145
 Percentile: 84.72 90.11 92.89 94.72 96.17 96.89 98.39 98.94 99.56
 Conc. (ppt): 2 9 37 160 329 680 977 1129 1305

**PERIOD # 7**

Time : 20 : 27 : 15 to 20 : 57 : 14 (1800 s)
 Maximum Concentration (ppt) : 4787
 Peak (99 perc) to mean ratio : 6.734708
 Plume intermittency : .7027778

	Total	Conditional
Mean Concentration (ppt)	620.3239	882.6743
Concentration fluc. intensity (%)	157.6765	120.4166
Skewness	1.869852	1.40197
Kurtosis	6.028124	4.348555

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 89 4178
 Percentile: 32.56 35.94 49.06 63.61 74.06 88.61 96.78 97.94 99.50
 Conc. (ppt): 2 13 69 377 879 2051 3134 3712 4398

**STATIONARY STATISTICS (T28A04)**

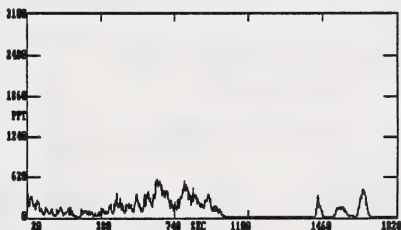
Scans : 20 to 12000
 Date : 12-17-1988 Start Time : 21:34:33
 Location: F5 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1783.6 m, East 1664.9 m)
 Transport from 268.41 deg
 Power Law Cal. : ppt = 1023.6 *(voltage)^ 1.855
 For volt > 1.0125 : ppt = 1033.6 *(voltage)^ 1.072

PERIOD # 1

Time : 21 : 34 : 45 to 22 : 4 : 44 (1800 s)
 Maximum Concentration (ppt) : 577
 Peak (99 perc) to mean ratio : 4.683018
 Plume intermittency : .7016667

	Total	Conditional
Mean Concentration (ppt)	109.4089	155.9272
Concentration fluc. intensity (%)	117.9346	82.31555
Skewness	1.256245	.9473603
Kurtosis	3.948048	3.343342

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 63 512
 Percentile: 31.11 35.72 41.28 55.22 72.11 90.33 96.67 98.39 99.50
 Conc. (ppt): 2 7 24 86 162 306 420 477 541

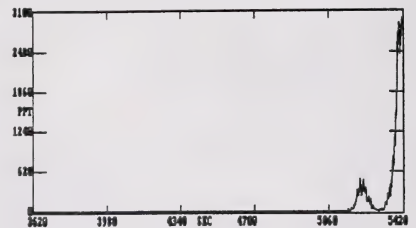


PERIOD # 3

Time : 22 : 34 : 45 to 23 : 4 : 44 (1800 s)
 Maximum Concentration (ppt) : 3002
 Peak (99 perc) to mean ratio : 34.29518
 Plume intermittency : .1522222

	Total	Conditional
Mean Concentration (ppt)	76.2	500.584
Concentration fluc. intensity (%)	478.0442	162.2005
Skewness	6.410392	2.096466
Kurtosis	45.51677	6.016242

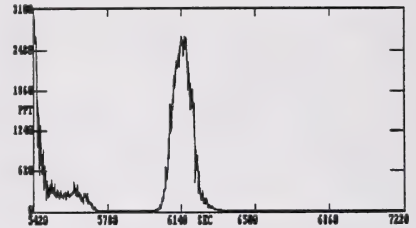
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 498 2613
 Percentile: 85.11 85.72 89.61 94.33 97.11 98.00 98.44 98.56 99.28
 Conc. (ppt): 2 11 55 272 605 1348 2012 2361 2771

**PERIOD # 4**

Time : 23 : 4 : 45 to 23 : 34 : 44 (1800 s)
 Maximum Concentration (ppt) : 2996
 Peak (99 perc) to mean ratio : 11.02615
 Plume intermittency : .3972222

	Total	Conditional
Mean Concentration (ppt)	240.2128	604.7314
Concentration fluc. intensity (%)	243.8927	132.6667
Skewness	2.972743	1.498259
Kurtosis	10.98339	3.847404

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 113 2649
 Percentile: 63.61 66.22 69.61 81.89 89.22 92.44 95.44 97.06 99.78
 Conc. (ppt): 2 11 55 271 604 1346 2008 2356 2766

**STATIONARY STATISTICS (T28A07)**

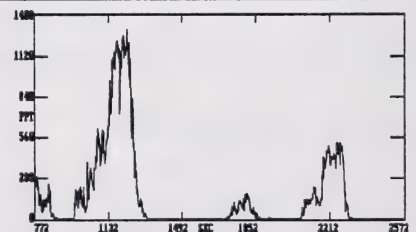
Scans : 773 to 7972
 Date : 12-18-1988 Start Time : 04:27:38
 Location: C0 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
 Transport from 227.49 deg
 Power Law Cal. : ppt = 1023.6 *(voltage)^ 1.855
 For volt > .10125 : ppt = 1033.6 *(voltage)^ 1.072

PERIOD # 1

Time : 4 : 40 : 23 to 5 : 10 : 22 (1800 s)
 Maximum Concentration (ppt) : 1300
 Peak (99 perc) to mean ratio : 8.114172
 Plume intermittency : .5561111

	Total	Conditional
Mean Concentration (ppt)	149.7117	269.2118
Concentration fluc. intensity (%)	187.8806	123.2531
Skewness	2.44532	1.624886
Kurtosis	8.516207	4.739257

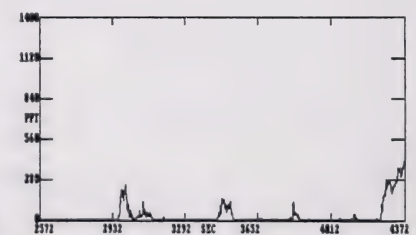
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 63 1215
 Percentile: 50.17 53.44 58.78 76.28 82.72 93.39 95.06 95.67 98.94
 Conc. (ppt): 2 9 36 151 310 635 908 1048 1210

**PERIOD # 2**

Time : 5 : 10 : 23 to 5 : 40 : 22 (1800 s)
 Maximum Concentration (ppt) : 406
 Peak (99 perc) to mean ratio : 12.69544
 Plume intermittency : .3916667

	Total	Conditional
Mean Concentration (ppt)	27.275	69.6383
Concentration fluc. intensity (%)	259.0642	142.1376
Skewness	3.11124	1.559889
Kurtosis	12.29002	4.336823

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 346
 Percentile: 67.94 75.67 80.67 88.00 91.44 95.22 98.06 98.83 99.83
 Conc. (ppt): 2 6 20 67 122 223 301 339 382

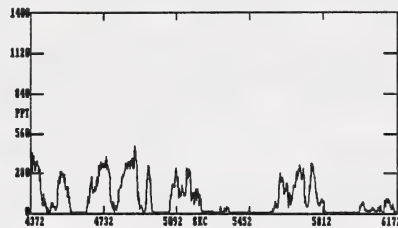


PERIOD # 3

Time : 5 : 40 : 23 to 6 : 10 : 22 (1800 s)
 Maximum Concentration (ppt) : 470
 Peak (99 perc) to mean ratio : 4.087746
 Plume intermittency : .7444444

	Total	Conditional
Mean Concentration (ppt)	96.98944	130.2843
Concentration fluc. intensity (%)	121.8272	92.15958
Skewness	1.052341	.6748988
Kurtosis	2.806184	2.173241

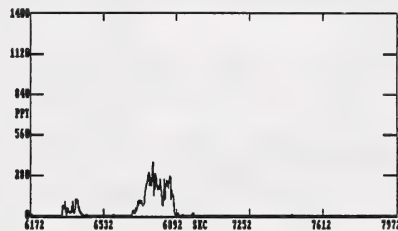
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 40 396
 Percentile: 29.22 35.72 44.67 60.17 69.78 84.50 95.72 98.89 99.89
 Conc. (ppt): 2 6 22 74 137 254 346 391 442

**PERIOD # 4**

Time : 6 : 10 : 23 to 6 : 40 : 22 (1800 s)
 Maximum Concentration (ppt) : 369
 Peak (99 perc) to mean ratio : 12.14695
 Plume intermittency : .2866667

	Total	Conditional
Mean Concentration (ppt)	22.10222	77.10078
Concentration fluc. intensity (%)	271.4831	118.2999
Skewness	3.351826	1.125432
Kurtosis	13.03682	2.94231

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 113 268
 Percentile: 76.17 80.06 83.83 88.33 92.39 95.50 99.33 99.78 99.89
 Conc. (ppt): 2 6 19 63 113 204 275 309 348

**STATIONARY STATISTICS (T28A09)**

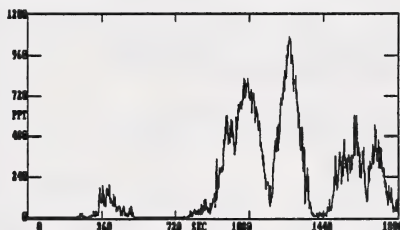
Scans : 1 to 4240
 Date : 12-18-1988 Start Time : 07:11:44
 Location: C0 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
 Transport from 227.49 deg
 Power Law Cal. : ppt = 1023.6 *(voltage)^ 1.855
 For volt > 1.0125 : ppt = 1033.6 *(voltage)^ 1.072

PERIOD # 1

Time : 7 : 11 : 37 to 7 : 41 : 36 (1800 s)
 Maximum Concentration (ppt) : 1073
 Peak (99 perc) to mean ratio : 4.991373
 Plume intermittency : .7394444

	Total	Conditional
Mean Concentration (ppt)	193.3589	261.4921
Concentration fluc. intensity (%)	130.4184	99.85802
Skewness	1.349608	.9864799
Kurtosis	3.90679	3.047143

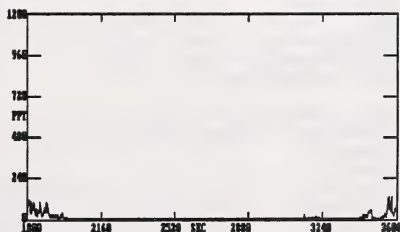
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 74 965
 Percentile: 28.61 32.94 43.17 59.83 69.44 86.89 95.67 98.11 99.33
 Conc. (ppt): 2 8 33 132 266 534 757 870 1001

**PERIOD # 2**

Time : 7 : 41 : 37 to 8 : 11 : 36 (1800 s)
 Maximum Concentration (ppt) : 124
 Peak (99 perc) to mean ratio : 14.16089
 Plume intermittency : .2722222

	Total	Conditional
Mean Concentration (ppt)	6.412222	23.5551
Concentration fluc. intensity (%)	278.3624	117.5395
Skewness	3.545393	1.428163
Kurtosis	16.22513	4.304328

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 91
 Percentile: 76.78 81.83 87.00 91.61 95.17 98.17 99.39 99.72 99.89
 Conc. (ppt): 2 4 11 29 47 77 97 107 118



STATIONARY STATISTICS (T28B02)

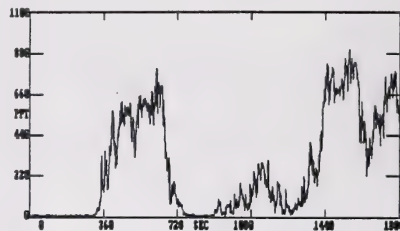
Scans : 1 to 15600
Date : 12-17-1988 Start Time : 17:21:33
Location: E0 on 700 m C Source : C Ground
Abs. Coordinates: (North 1883 m, East 1655 m)
Transport from 260.23 deg
Power Law Cal. : $ppt = 491.09 * (voltage)^{1.1}$

PERIOD # 1

Time : 17 : 21 : 26 to 17 : 51 : 25 (1800 s)
Maximum Concentration (ppt) : 904
Peak (99 perc) to mean ratio : 3.164507
Plume intermittency : .7472222

	Total	Conditional
Mean Concentration (ppt)	262.8094	351.7152
Concentration fluc. intensity (%)	104.2594	74.79671
Skewness	.6228037	.2266002
Kurtosis	1.857607	1.584147

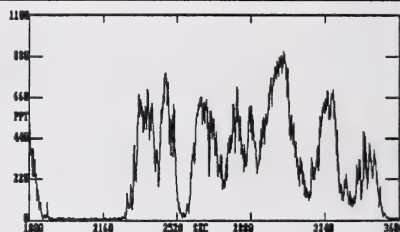
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 144 832
Percentile: 25.28 25.33 31.06 47.78 57.17 69.89 86.06 94.50 99.61
Conc. (ppt): 2 8 30 117 232 458 643 737 845

**PERIOD # 2**

Time : 17 : 51 : 26 to 18 : 21 : 25 (1800 s)
Maximum Concentration (ppt) : 906
Peak (99 perc) to mean ratio : 3.05272
Plume intermittency : .7738889

	Total	Conditional
Mean Concentration (ppt)	282.7189	365.3223
Concentration fluc. intensity (%)	88.83078	62.0127
Skewness	.4475487	.2133704
Kurtosis	2.043111	2.151899

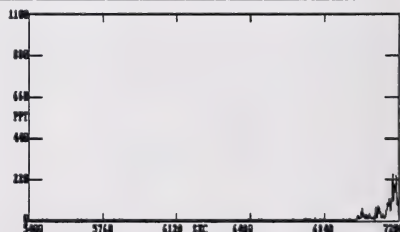
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 258 863
Percentile: 22.61 22.83 28.17 36.33 47.17 71.67 91.33 95.28 98.61
Conc. (ppt): 2 8 30 117 232 459 645 739 846

**PERIOD # 4**

Time : 18 : 51 : 26 to 19 : 21 : 25 (1800 s)
Maximum Concentration (ppt) : 248
Peak (99 perc) to mean ratio : 28.13834
Plume intermittency : 6.777778E-02

	Total	Conditional
Mean Concentration (ppt)	5.400556	79.68033
Concentration fluc. intensity (%)	469.545	74.97276
Skewness	6.073603	1.21146
Kurtosis	44.52129	3.633564

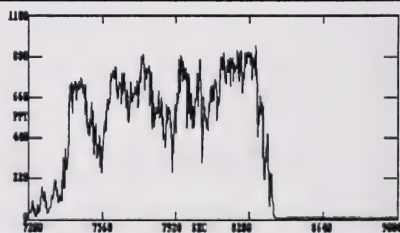
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 152
Percentile: 93.22 93.22 93.39 95.94 97.33 98.89 99.44 99.67 99.78
Conc. (ppt): 2 5 16 47 82 143 188 210 235

**PERIOD # 5**

Time : 19 : 21 : 26 to 19 : 51 : 25 (1800 s)
Maximum Concentration (ppt) : 941
Peak (99 perc) to mean ratio : 2.425908
Plume intermittency : .6755555

	Total	Conditional
Mean Concentration (ppt)	376.8944	557.903
Concentration fluc. intensity (%)	89.33728	46.3386
Skewness	5.339778E-02	-.7809901
Kurtosis	1.314132	2.43335

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 424 914
Percentile: 32.44 33.00 34.22 40.56 44.50 51.50 70.83 84.50 97.67
Conc. (ppt): 2 8 31 121 239 474 668 766 879



PERIOD # 6

Time : 19 : 51 : 26 to 20 : 21 : 25 (1800 s)

Maximum Concentration (ppt) : 80

Peak (99 perc) to mean ratio : 35.95591

Plume intermittency : 5.333333E-02

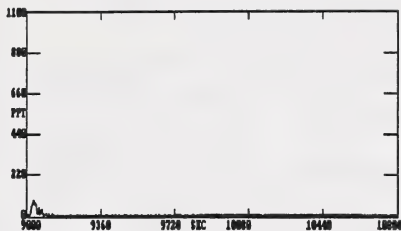
	Total	Conditional
Mean Concentration (ppt)	1.561111	29.27083
Concentration fluc. intensity (%)	538.822	77.57285
Skewness	6.530312	.7525741
Kurtosis	47.95929	2.108973

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 56

Percentile: 94.67 94.67 95.67 97.56 98.11 98.72 99.50 99.72 99.89

Conc. (ppt): 2 4 9 21 33 52 64 70 77

**PERIOD # 8**

Time : 20 : 51 : 26 to 21 : 21 : 25 (1800 s)

Maximum Concentration (ppt) : 1017

Peak (99 perc) to mean ratio : 4.324409

Plume intermittency : .8644444

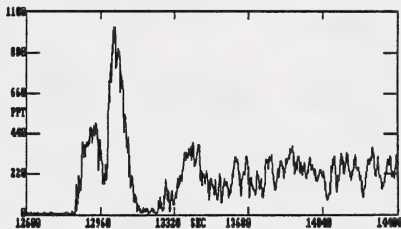
	Total	Conditional
Mean Concentration (ppt)	209.5711	242.4344
Concentration fluc. intensity (%)	83.36884	68.21031
Skewness	1.640567	1.95347
Kurtosis	7.520581	8.645197

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 196 906

Percentile: 13.56 13.89 19.56 30.83 66.28 95.61 96.89 98.17 99.44

Conc. (ppt): 2 8 32 127 255 509 719 826 949

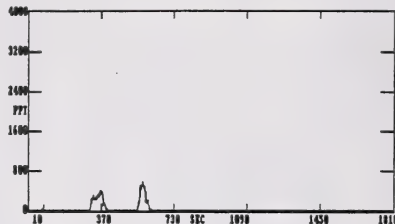


STATIONARY STATISTICS (T28B04)

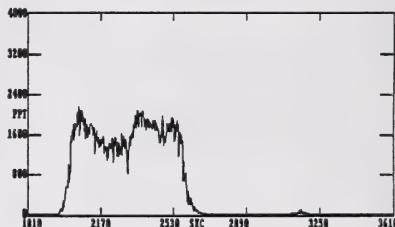
Scans : 10 to 10810
Date : 12-17-1988 Start Time : 21:53:26
Location: E0 on 700 m C Source : C Ground
Abs. Coordinates: (North 1883 m, East 1655 m)
Transport from 260.23 deg
Power Law Cal. : ppt = 491.09 *(voltage)^ 1.1

PERIOD # 1

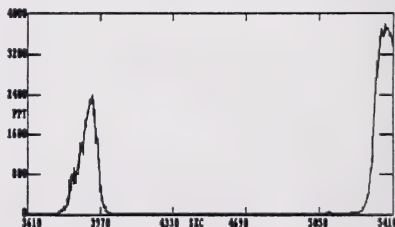
Time : 21 : 53 : 28 to 22 : 23 : 27 (1800 s)
Maximum Concentration (ppt) : 564
Peak (99 perc) to mean ratio : 22.23232
Plume intermittency : .095
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 20.47833 215.5614
Skewness : 389.5381 73.24815
Kurtosis : 4.38595 .3815021
Percentile: 22.60192 2.121775
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 144 455
Percentile: 90.50 90.61 92.06 93.00 94.28 97.28 98.56 99.11 99.83
Conc. (ppt): 2 7 24 84 159 299 411 466 529

**PERIOD # 2**

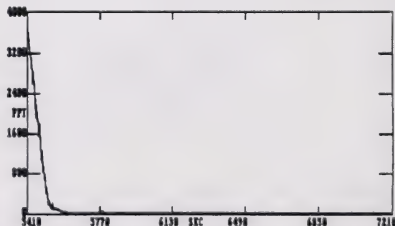
Time : 22 : 23 : 28 to 22 : 53 : 27 (1800 s)
Maximum Concentration (ppt) : 2142
Peak (99 perc) to mean ratio : 3.869503
Plume intermittency : .4761111
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 535.1689 1124.042
Skewness : 141.7663 65.80157
Kurtosis : .8612355 -.5240173
Percentile: 1.909953 1.603333
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 258 2071
Percentile: 52.39 54.89 60.61 64.56 66.72 69.22 76.83 85.67 97.78
Conc. (ppt): 2 10 46 215 462 995 1460 1702 1984

**PERIOD # 3**

Time : 22 : 53 : 28 to 23 : 23 : 27 (1800 s)
Maximum Concentration (ppt) : 3814
Peak (99 perc) to mean ratio : 11.7613
Plume intermittency : .2788889
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 316.3178 1134.207
Skewness : 264.023 110.5881
Kurtosis : 2.937116 .9167785
Percentile: 10.80381 2.480342
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 3720
Percentile: 72.11 73.50 79.72 84.06 86.56 91.89 95.50 96.00 96.78
Conc. (ppt): 2 12 62 321 733 1672 2525 2978 3512

**PERIOD # 4**

Time : 23 : 23 : 28 to 23 : 53 : 27 (1800 s)
Maximum Concentration (ppt) : 3594
Peak (99 perc) to mean ratio : 26.93349
Plume intermittency : .1177778
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 109.0228 925.6651
Skewness : 449.0882 122.1934
Kurtosis : 5.118001 .9885446
Percentile: 29.4293 2.515821
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2936
Percentile: 88.22 88.94 91.39 94.61 95.28 96.67 98.00 98.83 99.50
Conc. (ppt): 2 12 60 308 699 1585 2387 2811 3311



STATIONARY STATISTICS (T28C02)

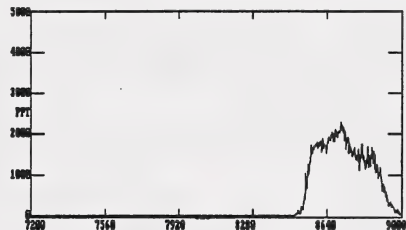
Scans : 1 to 16150
Date : 12-17-1988 Start Time : 17:37:55
Location: F9 on 700 m C Source : C Ground
Abs. Coordinates: (North 1703.7 m, East 1662.6 m)
Transport from 274.96 deg
Power Law Cal. : ppt = 952.85 *(voltage)^ .8904

PERIOD # 5

Time : 19 : 37 : 47 to 20 : 7 : 46 (1800 s)
Maximum Concentration (ppt) : 2279
Peak (99 perc) to mean ratio : 6.026573
Plume intermittency : .2877778

	Total	Conditional
Mean Concentration (ppt)	347.6906	1208.191
Concentration fluc. intensity (%)	188.3506	55.56045
Skewness	1.569515	-.5443122
Kurtosis	3.76527	1.904747

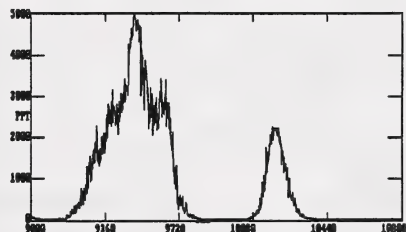
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2095
Percentile: 71.22 71.22 72.00 75.83 78.11 80.83 88.39 94.44 99.22
Conc. (ppt): 2 10 48 224 486 1052 1548 1807 2109

**PERIOD # 6**

Time : 20 : 7 : 47 to 20 : 37 : 46 (1800 s)
Maximum Concentration (ppt) : 5032
Peak (99 perc) to mean ratio : 5.87891
Plume intermittency : .5966667

	Total	Conditional
Mean Concentration (ppt)	823.6639	1380.442
Concentration fluc. intensity (%)	152.3737	99.09551
Skewness	1.484237	.7801243
Kurtosis	4.222261	2.633497

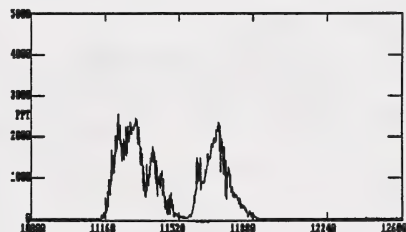
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 53 4842
Percentile: 40.33 43.72 52.78 63.72 69.67 81.56 95.06 96.56 97.83
Conc. (ppt): 2 13 71 390 915 2146 3286 3897 4621

**PERIOD # 7**

Time : 20 : 37 : 47 to 21 : 7 : 46 (1800 s)
Maximum Concentration (ppt) : 2519
Peak (99 perc) to mean ratio : 5.677853
Plume intermittency : .4477778

	Total	Conditional
Mean Concentration (ppt)	403.0005	900.0012
Concentration fluc. intensity (%)	165.3902	82.01373
Skewness	1.534467	.3987769
Kurtosis	4.009085	1.843515

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2288
Percentile: 55.22 55.39 60.11 68.28 73.11 83.56 91.33 95.39 99.50
Conc. (ppt): 2 10 50 240 526 1151 1703 1992 2329



STATIONARY STATISTICS (T28C04)

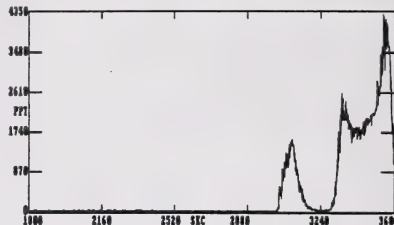
Scans : 1 to 5400
Date : 12-17-1988 Start Time : 22:14:41
Location: F9 on 700 m C Source : C Ground
Abs. Coordinates: (North 1703.7 m, East 1662.6 m)
Transport from 274.96 deg
Power Law Cal. : ppt = 952.85 *(voltage)^ .8904

PERIOD # 2

Time : 22 : 44 : 33 to 23 : 14 : 32 (1800 s)
Maximum Concentration (ppt) : 4300
Peak (99 perc) to mean ratio : 8.683916
Plume intermittency : .5833333

	Total	Conditional
Mean Concentration (ppt)	424.5511	727.8019
Concentration fluc. intensity (%)	204.7093	142.4024
Skewness	2.13667	1.30614
Kurtosis	6.842496	3.730402

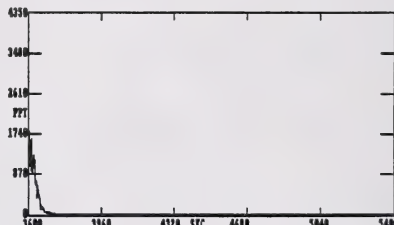
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 6 3687
Percentile: 41.67 63.17 73.78 77.61 80.39 89.44 97.11 98.22 99.61
Conc. (ppt): 2 12 66 349 807 1863 2830 3346 3955

**PERIOD # 3**

Time : 23 : 14 : 33 to 23 : 44 : 32 (1800 s)
Maximum Concentration (ppt) : 1783
Peak (99 perc) to mean ratio : 38.11073
Plume intermittency : 7.166667E-02

	Total	Conditional
Mean Concentration (ppt)	31.45944	438.969
Concentration fluc. intensity (%)	571.1363	118.7185
Skewness	6.791231	1.062398
Kurtosis	51.38563	2.764922

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1199
Percentile: 92.83 92.83 94.94 96.83 97.28 98.28 99.06 99.50 99.83
Conc. (ppt): 2 9 42 189 399 843 1226 1424 1654



STATIONARY STATISTICS (T28C06)

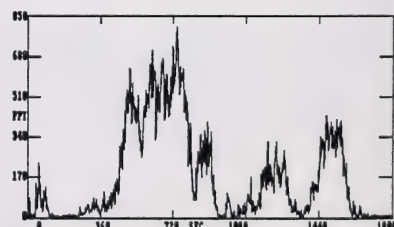
Scans : 1 to 1800
Date : 12-18-1988 Start Time : 01:22:10
Location: E4 on 700 m C Source : C Ground
Abs. Coordinates: (North 1999 m, East 1624.7 m)
Transport from 250.41 deg
Power Law Cal. : ppt = 952.85 *(voltage)^ .8904

PERIOD # 1

Time : 1 : 22 : 2 to 1 : 52 : 1 (1800 s)
Maximum Concentration (ppt) : 805
Peak (99 perc) to mean ratio : 4.165552
Plume intermittency : .7211111

	Total	Conditional
Mean Concentration (ppt)	167.1617	231.8112
Concentration fluc. intensity (%)	117.2367	84.39425
Skewness	1.123961	.7805994
Kurtosis	3.13205	2.468522

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 88 696
Percentile: 27.89 27.89 33.11 55.56 68.00 84.44 94.17 98.56 99.67
Conc. (ppt): 2 7 28 108 211 412 576 659 753



Field Test 29
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 16:53 Dec 18 88
Test Stop Time: 08:40 Dec 19 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 15

Analyser B Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 6

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 10

STATIONARY STATISTICS (T29A02)

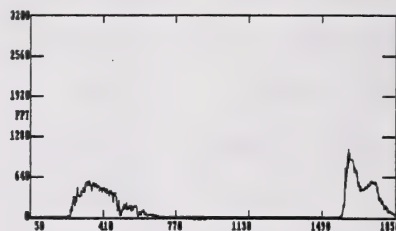
Scans : 50 to 11800
Date : 12-18-1988 Start Time : 17:02:09
Location: J8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1111.6 m, East 1218.3 m)
Transport from 338.81 deg
Power Law Cal. : ppt = 1255.7 *(voltage)^ 1.968
For volt > .853 : ppt = 1088.5 *(voltage)^ 1.068

PERIOD # 1

Time : 17 : 2 : 51 to 17 : 32 : 50 (1800 s)
Maximum Concentration (ppt) : 1077
Peak (99 perc) to mean ratio : 7.335855
Plume intermittency : .4205556

	Total	Conditional
Mean Concentration (ppt)	127.6028	303.4148
Concentration fluc. intensity (%)	170.4599	80.15899
Skewness	1.787678	.6931577
Kurtosis	5.598508	2.998859

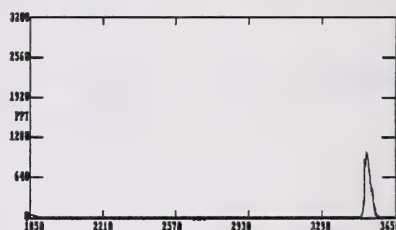
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 936
Percentile: 59.28 60.61 63.94 71.50 78.83 94.22 97.61 98.39 99.67
Conc. (ppt): 2 8 33 133 267 536 760 873 1004

**PERIOD # 2**

Time : 17 : 32 : 51 to 18 : 2 : 50 (1800 s)
Maximum Concentration (ppt) : 1039
Peak (99 perc) to mean ratio : 40.25835
Plume intermittency : .1127778

	Total	Conditional
Mean Concentration (ppt)	20.17722	178.9113
Concentration fluc. intensity (%)	577.2868	169.4464
Skewness	6.779752	1.697854
Kurtosis	50.26804	4.437829

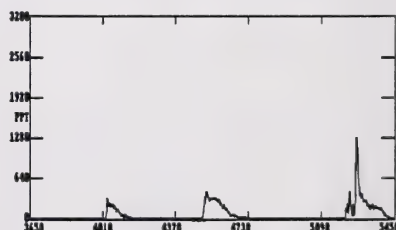
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 812
Percentile: 91.28 93.11 95.22 96.78 97.44 98.39 98.72 99.11 99.61
Conc. (ppt): 2 8 32 129 259 519 734 844 969

**PERIOD # 3**

Time : 18 : 2 : 51 to 18 : 32 : 50 (1800 s)
Maximum Concentration (ppt) : 1290
Peak (99 perc) to mean ratio : 10.74064
Plume intermittency : .385

	Total	Conditional
Mean Concentration (ppt)	57.78556	150.0923
Concentration fluc. intensity (%)	233.3259	121.6954
Skewness	4.380651	2.981836
Kurtosis	30.70164	16.03417

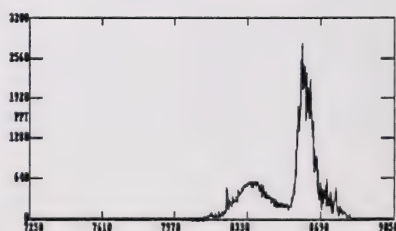
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 621
Percentile: 65.28 68.61 74.28 83.33 95.39 99.11 99.33 99.50 99.83
Conc. (ppt): 2 9 36 150 308 630 902 1041 1201

**PERIOD # 5**

Time : 19 : 2 : 51 to 19 : 32 : 50 (1800 s)
Maximum Concentration (ppt) : 2810
Peak (99 perc) to mean ratio : 11.90813
Plume intermittency : .4188889

	Total	Conditional
Mean Concentration (ppt)	191.0061	455.9828
Concentration fluc. intensity (%)	221.4001	121.3342
Skewness	3.417048	2.153207
Kurtosis	15.55289	7.099569

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2275
Percentile: 59.00 60.50 65.17 77.33 92.94 95.39 97.94 98.83 99.89
Conc. (ppt): 2 11 53 259 574 1270 1889 2214 2595

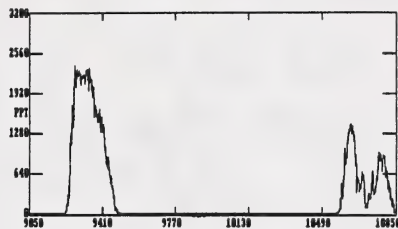


PERIOD # 6

Time : 19 : 32 : 51 to 20 : 2 : 50 (1800 s)
 Maximum Concentration (ppt) : 2356
 Peak (99 perc) to mean ratio : 7.868038
 Plume intermittency : .4005556

	Total	Conditional
Mean Concentration (ppt)	291.6956	728.2275
Concentration fluc. intensity (%)	202.9647	102.5003
Skewness	2.144213	.8058801
Kurtosis	6.528464	2.360995

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2295
 Percentile: 67.56 69.06 71.00 74.33 79.78 88.44 93.61 94.61 97.11
 Conc. (ppt): 2 10 49 229 499 1084 1598 1866 2180

**STATIONARY STATISTICS (T29A04)**

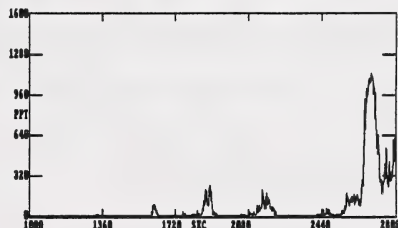
Scans : 1000 to 15100
 Date : 12-18-1988 Start Time : 20:25:25
 Location: J8 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1111.6 m, East 1218.3 m)
 Transport from 338.81 deg
 Power Law Cal. : ppt = 1255.7 *(voltage)^ 1.968
 For volt > .853 : ppt = 1088.5 *(voltage)^ 1.068

PERIOD # 1

Time : 20 : 41 : 57 to 21 : 11 : 56 (1800 s)
 Maximum Concentration (ppt) : 1130
 Peak (99 perc) to mean ratio : 15.16067
 Plume intermittency : .5283333

	Total	Conditional
Mean Concentration (ppt)	69.98111	132.4564
Concentration fluc. intensity (%)	274.0497	186.9836
Skewness	3.862355	2.641602
Kurtosis	18.32073	9.410339

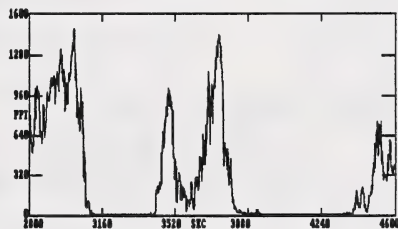
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1061
 Percentile: 58.11 67.44 76.39 87.39 92.56 96.17 97.28 97.50 98.89
 Conc. (ppt): 2 8 34 137 277 559 795 915 1053

**PERIOD # 2**

Time : 21 : 11 : 57 to 21 : 41 : 56 (1800 s)
 Maximum Concentration (ppt) : 1495
 Peak (99 perc) to mean ratio : 4.716089
 Plume intermittency : .6388889

	Total	Conditional
Mean Concentration (ppt)	293.0828	458.7383
Concentration fluc. intensity (%)	138.0447	92.54067
Skewness	1.212389	.5986433
Kurtosis	3.140465	2.055621

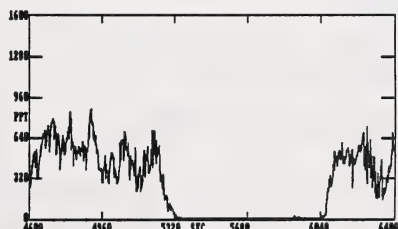
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 36 1382
 Percentile: 38.83 44.39 50.67 59.39 68.61 81.39 91.22 96.28 99.11
 Conc. (ppt): 2 9 39 167 347 720 1037 1201 1390

**PERIOD # 3**

Time : 21 : 41 : 57 to 22 : 11 : 56 (1800 s)
 Maximum Concentration (ppt) : 871
 Peak (99 perc) to mean ratio : 2.953937
 Plume intermittency : .6694444

	Total	Conditional
Mean Concentration (ppt)	272.1561	406.5403
Concentration fluc. intensity (%)	95.29352	52.6647
Skewness	.2254115	-.517597
Kurtosis	1.548052	2.470056

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 264 804
 Percentile: 36.11 38.72 41.17 43.56 46.72 65.06 90.83 96.94 99.22
 Conc. (ppt): 2 8 30 114 225 443 621 711 814

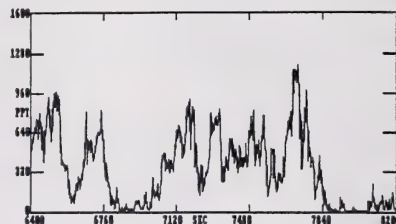


PERIOD # 4

Time : 22 : 11 : 57 to 22 : 41 : 56 (1800 s)
 Maximum Concentration (ppt) : 1187
 Peak (99 perc) to mean ratio : 3.124681
 Plume intermittency : .9877778

	Total	Conditional
Mean Concentration (ppt)	350.0228	354.3538
Concentration fluc. intensity (%)	81.35909	80.10104
Skewness	.4772859	.465403
Kurtosis	2.304437	2.305412

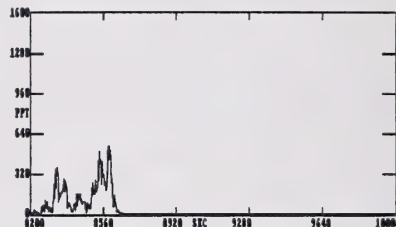
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 330 1094
 Percentile: 4.39 8.94 18.78 34.06 45.72 76.11 95.11 97.78 99.11
 Conc. (ppt): 2 8 34 142 288 585 833 960 1106

**PERIOD # 5**

Time : 22 : 41 : 57 to 23 : 11 : 56 (1800 s)
 Maximum Concentration (ppt) : 541
 Peak (99 perc) to mean ratio : 12.73797
 Plume intermittency : .2672222

	Total	Conditional
Mean Concentration (ppt)	34.47111	128.9979
Concentration fluc. intensity (%)	253.9336	99.51543
Skewness	3.166728	1.201695
Kurtosis	13.52274	3.837807

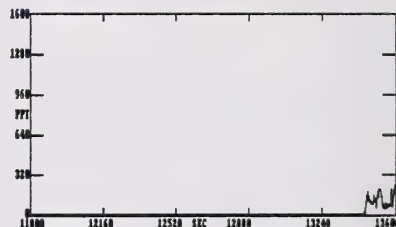
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 439
 Percentile: 74.83 76.28 80.06 86.39 90.83 96.61 98.44 99.11 99.67
 Conc. (ppt): 2 7 23 82 154 288 395 448 508

**PERIOD # 7**

Time : 23 : 41 : 57 to 0 : 11 : 56 (1800 s)
 Maximum Concentration (ppt) : 225
 Peak (99 perc) to mean ratio : 19.6821
 Plume intermittency : 8.833333E-02

	Total	Conditional
Mean Concentration (ppt)	8.862223	100.327
Concentration fluc. intensity (%)	368.2583	53.50314
Skewness	4.009448	.1885253
Kurtosis	19.12303	2.438462

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 174
 Percentile: 91.50 91.83 91.83 92.00 94.39 97.28 98.94 99.33 99.89
 Conc. (ppt): 2 5 15 44 76 131 172 191 213

**STATIONARY STATISTICS (T29A06)**

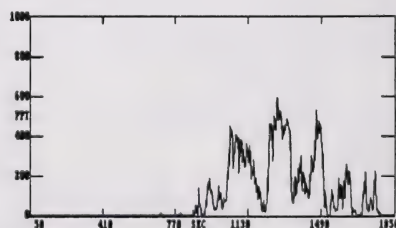
Scans : 50 to 14050
 Date : 12-19-1988 Start Time : 00:47:36
 Location: J8 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1111.6 m, East 1218.3 m)
 Transport from 338.81 deg
 Power Law Cal. : ppt = 1255.7 *(voltage)^ 1.968
 For volt > .853 : ppt = 1088.5 *(voltage)^ 1.068

PERIOD # 1

Time : 0 : 48 : 18 to 1 : 18 : 17 (1800 s)
 Maximum Concentration (ppt) : 596
 Peak (99 perc) to mean ratio : 5.615004
 Plume intermittency : .5438889

	Total	Conditional
Mean Concentration (ppt)	92.65722	170.3606
Concentration fluc. intensity (%)	153.1103	90.49393
Skewness	1.5607	.7780482
Kurtosis	4.327281	2.438492

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 4 520
 Percentile: 48.17 51.83 55.50 67.67 77.72 88.50 94.94 98.56 99.61
 Conc. (ppt): 2 7 24 88 166 315 433 492 559

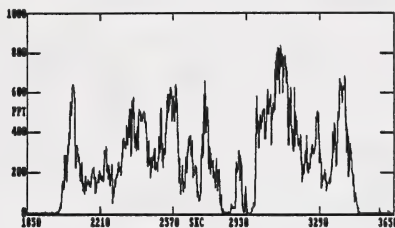


PERIOD # 2

Time : 1 : 18 : 18 to 1 : 48 : 17 (1800 s)
 Maximum Concentration (ppt) : 840
 Peak (99 perc) to mean ratio : 3.11311
 Plume intermittency : .8694444

	Total	Conditional
Mean Concentration (ppt)	246.5517	283.5738
Concentration fluc. intensity (%)	83.29158	68.7474
Skewness	.5708368	.4945822
Kurtosis	2.532115	2.608249

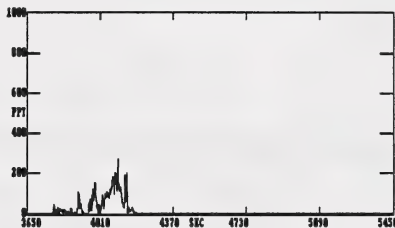
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 221 768
 Percentile: 16.22 20.67 24.06 30.00 49.61 79.28 93.72 97.22 99.39
 Conc. (ppt): 2 8 29 111 218 428 600 686 785

**PERIOD # 3**

Time : 1 : 48 : 18 to 2 : 18 : 17 (1800 s)
 Maximum Concentration (ppt) : 266
 Peak (99 perc) to mean ratio : 14.37064
 Plume intermittency : .2311111

	Total	Conditional
Mean Concentration (ppt)	11.23	48.59135
Concentration fluc. intensity (%)	290.8026	108.882
Skewness	3.731001	1.357962
Kurtosis	18.35064	4.442866

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 161
 Percentile: 78.22 80.67 86.50 91.50 94.67 98.83 99.72 99.78 99.83
 Conc. (ppt): 2 5 16 50 87 152 201 225 252

**STATIONARY STATISTICS (T29A08D)**

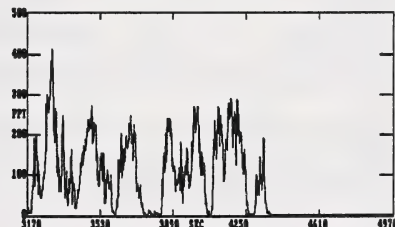
Scans : 3170 to 14050
 Date : 12-19-1988 Start Time : 04:46:56
 Location: L6 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1071.5 m, East 864.5 m)
 Transport from 8.27 deg
 Power Law Cal. : ppt = 1255.7 *(voltage)^ 1.968
 For volt > .853 : ppt = 1088.5 *(voltage)^ 1.068

PERIOD # 1

Time : 5 : 39 : 38 to 6 : 9 : 37 (1800 s)
 Maximum Concentration (ppt) : 412
 Peak (99 perc) to mean ratio : 3.899842
 Plume intermittency : .6533333

	Total	Conditional
Mean Concentration (ppt)	77.52611	118.6624
Concentration fluc. intensity (%)	114.4626	71.36601
Skewness	.9165566	.4492914
Kurtosis	2.869515	2.578263

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 42 302
 Percentile: 36.83 41.67 45.67 55.28 71.33 92.33 99.22 99.56 99.78
 Conc. (ppt): 2 6 20 68 124 226 305 344 388



STATIONARY STATISTICS (T29B02A)

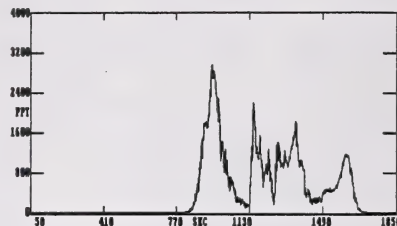
Scans : 50 to 3350
Date : 12-18-1988 Start Time : 17:02:09
Location: K0 on 700 m C Source : C Ground
Abs. Coordinates: (North 1064.5 m, East 984.1 m)
Transport from 358.45 deg
Power Law Cal. : ppt = 501.9 *(voltage)^ 1.076

PERIOD # 1

Time : 17 : 2 : 51 to 17 : 32 : 50 (1800 s)
Maximum Concentration (ppt) : 2944
Peak (99 perc) to mean ratio : 6.676454
Plume intermittency : .5038889

	Total	Conditional
Mean Concentration (ppt)	403.7622	801.2922
Concentration fluc. intensity (%)	150.397	80.22765
Skewness	1.741012	1.064476
Kurtosis	5.760745	3.875303

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 6 2696
Percentile: 49.61 50.50 53.50 61.33 73.50 91.28 97.00 98.06 99.06
Conc. (ppt): 2 11 54 268 596 1324 1975 2317 2718



STATIONARY STATISTICS (T29B02B)

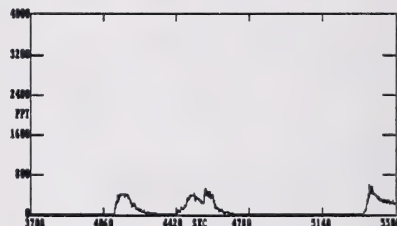
Scans : 3700 to 12450
Date : 12-18-1988 Start Time : 17:02:09
Location: H0 on 700 m C Source : C Ground
Abs. Coordinates: (North 1320.5 m, East 1506.6 m)
Transport from 309.34 deg
Power Law Cal. : ppt = 501.9 *(voltage)^ 1.076

PERIOD # 1

Time : 18 : 3 : 41 to 18 : 33 : 40 (1800 s)
Maximum Concentration (ppt) : 607
Peak (99 perc) to mean ratio : 6.008027
Plume intermittency : .3838889

	Total	Conditional
Mean Concentration (ppt)	78.34666	204.0868
Concentration fluc. intensity (%)	172.7312	72.75045
Skewness	1.565315	.1752969
Kurtosis	4.075661	1.791604

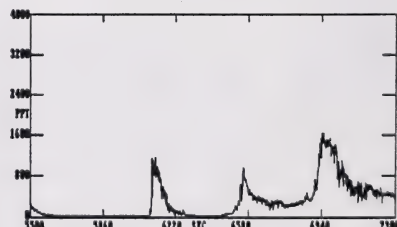
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 6 471
Percentile: 61.61 62.72 67.17 73.94 78.56 89.44 98.50 99.50 99.89
Conc. (ppt): 2 7 25 89 168 320 441 501 569

**PERIOD # 2**

Time : 18 : 33 : 41 to 19 : 3 : 40 (1800 s)
Maximum Concentration (ppt) : 1636
Peak (99 perc) to mean ratio : 5.422952
Plume intermittency : .6655555

	Total	Conditional
Mean Concentration (ppt)	273.8556	411.4691
Concentration fluc. intensity (%)	130.3151	89.20784
Skewness	1.672244	1.340379
Kurtosis	5.553185	4.426434

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 147 1485
Percentile: 33.44 34.39 42.17 52.22 70.44 90.78 95.28 96.44 99.50
Conc. (ppt): 2 9 40 178 372 781 1130 1310 1519

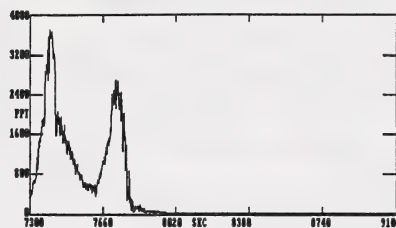


PERIOD # 3

Time : 19 : 3 : 41 to 19 : 33 : 40 (1800 s)
 Maximum Concentration (ppt) : 3718
 Peak (99 perc) to mean ratio : 8.641209
 Plume intermittency : .3844444

	Total	Conditional
Mean Concentration (ppt)	: 398.0945	1035.506
Concentration fluc. intensity (%)	: 195.0606	92.04368
Skewness	: 2.196264	.9005559
Kurtosis	: 7.339128	3.069285

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 3440
 Percentile: 61.56 62.39 69.28 72.83 79.61 90.78 96.44 97.78 98.94
 Conc. (ppt): 2 12 61 316 718 1634 2465 2905 3425

**STATIONARY STATISTICS (T29B08B)**

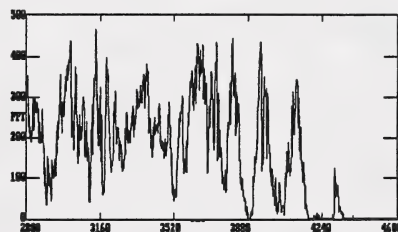
Scans : 2800 to 15450
 Date : 12-19-1988 Start Time : 04:25:46
 Location: K0 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1064.5 m, East 984.1 m)
 Transport from 358.45 deg
 Power Law Cal. : ppt = 501.9 *(voltage)^ 1.076

PERIOD # 1

Time : 5 : 12 : 18 to 5 : 42 : 17 (1800 s)
 Maximum Concentration (ppt) : 467
 Peak (99 perc) to mean ratio : 2.627724
 Plume intermittency : .7866667

	Total	Conditional
Mean Concentration (ppt)	: 160.975	204.6292
Concentration fluc. intensity (%)	: 78.22285	51.77002
Skewness	: .1562653	-2.116761E-02
Kurtosis	: 1.846126	2.225657

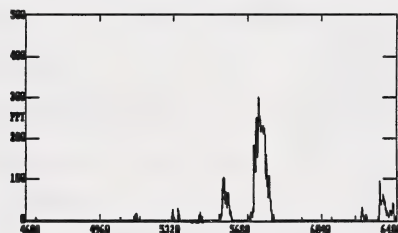
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 164 423
 Percentile: 21.33 21.33 24.89 32.44 43.17 72.61 91.94 97.33 99.78
 Conc. (ppt): 2 6 22 74 137 253 343 388 439

**PERIOD # 2**

Time : 5 : 42 : 18 to 6 : 12 : 17 (1800 s)
 Maximum Concentration (ppt) : 299
 Peak (99 perc) to mean ratio : 20.8466
 Plume intermittency : .1805556

	Total	Conditional
Mean Concentration (ppt)	: 11.25944	62.36
Concentration fluc. intensity (%)	: 353.633	119.9382
Skewness	: 4.65633	1.537818
Kurtosis	: 25.43746	4.092062

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 235
 Percentile: 81.94 81.94 89.00 94.33 95.94 97.61 98.56 99.78 99.78
 Conc. (ppt): 2 6 17 54 96 169 225 252 282



STATIONARY STATISTICS (T29C08)

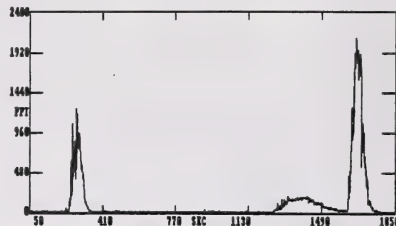
Scans : 50 to 6650
Date : 12-18-1988 Start Time : 18:09:52
Location: G1 on 700 m C Source : C Ground
Abs. Coordinates: (North 1663.9 m, East 1658 m)
Transport from 278.24 deg
Power Law Cal. : $ppt = 992.96 * (voltage)^{.855}$

PERIOD # 1

Time : 18 : 10 : 33 to 18 : 40 : 32 (1800 s)
Maximum Concentration (ppt) : 2098
Peak (99 perc) to mean ratio : 16.71986
Plume intermittency : .3616667

	Total	Conditional
Mean Concentration (ppt)	107.2461	296.533
Concentration fluc. intensity (%)	284.6694	151.4098
Skewness	4.19729	2.333112
Kurtosis	21.87568	7.892796

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1793
Percentile: 63.83 64.22 72.94 90.94 92.72 96.94 98.11 98.44 99.67
Conc. (ppt): 2 10 46 211 454 976 1431 1668 1944



STATIONARY STATISTICS (T29C10)

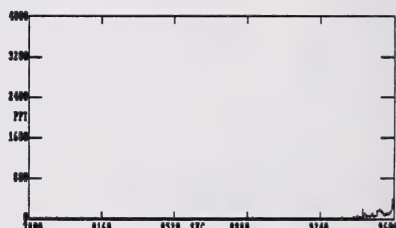
Scans : 600 to 14450
Date : 12-18-1988 Start Time : 20:13:16
Location: K5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1074.3 m, East 1083.6 m)
Transport from 350.27 deg
Power Law Cal. : $ppt = 992.96 * (voltage)^{.855}$

PERIOD # 5

Time : 22 : 23 : 7 to 22 : 53 : 6 (1800 s)
Maximum Concentration (ppt) : 378
Peak (99 perc) to mean ratio : 21.79074
Plume intermittency : .1022222

	Total	Conditional
Mean Concentration (ppt)	8.115	79.38587
Concentration fluc. intensity (%)	380.1559	76.12634
Skewness	5.357522	1.814695
Kurtosis	40.81475	8.269303

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 177
Percentile: 89.78 89.78 91.00 94.83 97.61 99.72 99.83 99.89 99.89
Conc. (ppt): 2 6 19 64 115 209 281 316 356

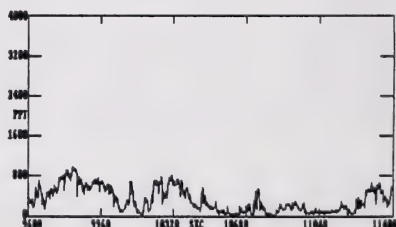


PERIOD # 6

Time : 22 : 53 : 7 to 23 : 23 : 6 (1800 s)
Maximum Concentration (ppt) : 972
Peak (99 perc) to mean ratio : 2.916045
Plume intermittency : .9833333

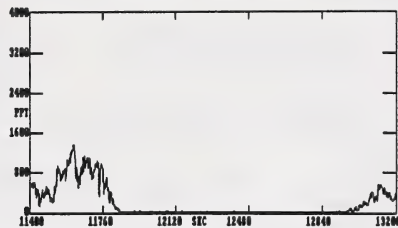
	Total	Conditional
Mean Concentration (ppt)	311.1683	316.4424
Concentration fluc. intensity (%)	78.23074	76.49432
Skewness	.5930205	.58399
Kurtosis	2.14988	2.136163

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 241 907
Percentile: 1.67 1.67 5.56 30.89 50.72 71.89 91.33 97.28 99.00
Conc. (ppt): 2 8 31 123 246 489 689 791 907



PERIOD # 7

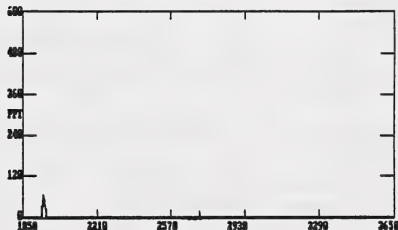
Time : 23 : 23 : 7 to 23 : 53 : 6 (1800 s)
 Maximum Concentration (ppt) : 1358
 Peak (99 perc) to mean ratio : 6.178347
 Plume intermittency : .3805556
 Total Conditional
 Mean Concentration (ppt) : 188.2672 494.7168
 Concentration fluc. intensity (%) : 168.107 67.52806
 Skewness : 1.660761 .4781325
 Kurtosis : 4.665008 2.198221
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1163
 Percentile: 61.94 61.94 63.83 68.61 76.28 88.17 95.11 98.50 99.72
 Conc. (ppt): 2 9 37 156 321 660 947 1094 1263

**STATIONARY STATISTICS (T29C14)**

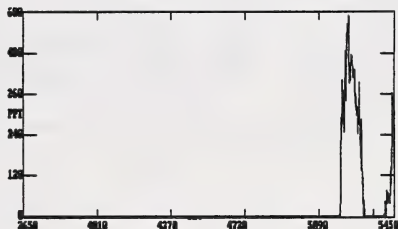
Scans : 50 to 14750
 Date : 12-19-1988 Start Time : 04:36:25
 Location: K5 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1074.3 m, East 1083.6 m)
 Transport from 350.27 deg
 Power Law Cal. : ppt = 992.96 *(voltage)^ .855

PERIOD # 2

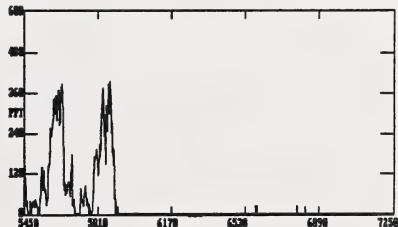
Time : 5 : 7 : 6 to 5 : 37 : 5 (1800 s)
 Maximum Concentration (ppt) : 65
 Peak (99 perc) to mean ratio : 58.42295
 Plume intermittency : 1.22222E-02
 Total Conditional
 Mean Concentration (ppt) : .4827778 39.5
 Concentration fluc. intensity (%) : 948.8016 33.5405
 Skewness : 10.17371 .0324869
 Kurtosis : 111.1355 2.304062
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 28
 Percentile: 98.78 98.78 98.78 98.89 99.00 99.50 99.83 99.83 99.94
 Conc. (ppt): 2 3 8 19 28 43 53 57 62

**PERIOD # 3**

Time : 5 : 37 : 6 to 6 : 7 : 5 (1800 s)
 Maximum Concentration (ppt) : 591
 Peak (99 perc) to mean ratio : 19.22143
 Plume intermittency : .09
 Total Conditional
 Mean Concentration (ppt) : 23.86833 265.2037
 Concentration fluc. intensity (%) : 379.5076 62.14771
 Skewness : 4.026818 -7.408998E-02
 Kurtosis : 18.54647 1.768988
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 459
 Percentile: 91.00 91.00 91.33 93.22 94.00 96.11 98.56 99.44 99.72
 Conc. (ppt): 2 7 24 87 165 312 430 488 554

**PERIOD # 4**

Time : 6 : 7 : 6 to 6 : 37 : 5 (1800 s)
 Maximum Concentration (ppt) : 393
 Peak (99 perc) to mean ratio : 11.15268
 Plume intermittency : .2183333
 Total Conditional
 Mean Concentration (ppt) : 32.54055 149.0407
 Concentration fluc. intensity (%) : 255.0594 79.91914
 Skewness : 2.830717 .5898184
 Kurtosis : 10.04859 1.867965
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 363
 Percentile: 78.17 78.17 79.06 85.78 89.72 93.44 95.72 97.17 99.39
 Conc. (ppt): 2 6 20 65 119 216 292 329 370



PERIOD # 5

Time : 6 : 37 : 6 to 7 : 7 : 5 (1800 s)

Maximum Concentration (ppt) : 77

Peak (99 perc) to mean ratio : 37.56773

Plume intermittency : 2.388889E-02

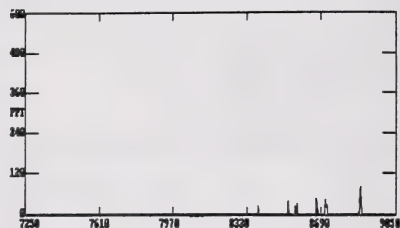
	Total	Conditional
Mean Concentration (ppt)	: .8322222	34.83721
Concentration fluc. intensity (%)	: 697.88	43.2857
Skewness	: 8.16385	1.299439
Kurtosis	: 78.03928	3.793981

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 31

Percentile: 97.61 97.61 97.61 97.89 99.11 99.61 99.78 99.89 99.94

Conc. (ppt): 2 4 9 21 32 50 62 68 74

**PERIOD # 6**

Time : 7 : 7 : 6 to 7 : 37 : 5 (1800 s)

Maximum Concentration (ppt) : 464

Peak (99 perc) to mean ratio : 7.460911

Plume intermittency : .3394445

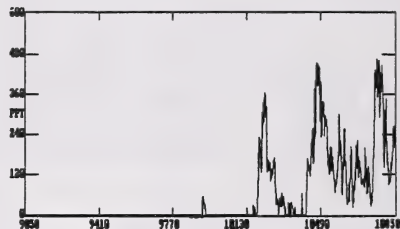
	Total	Conditional
Mean Concentration (ppt)	: 57.87278	170.4926
Concentration fluc. intensity (%)	: 181.9379	68.04798
Skewness	: 1.992563	.8027313
Kurtosis	: 6.288881	2.790151

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 432

Percentile: 66.06 66.06 66.56 73.56 81.00 92.06 96.11 97.33 99.17

Conc. (ppt): 2 6 22 74 136 251 341 386 436

**PERIOD # 7**

Time : 7 : 37 : 6 to 8 : 7 : 5 (1800 s)

Maximum Concentration (ppt) : 489

Peak (99 perc) to mean ratio : 2.250371

Plume intermittency : .9066667

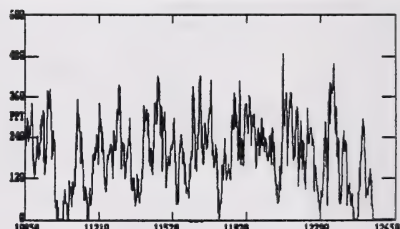
	Total	Conditional
Mean Concentration (ppt)	: 180.4578	199.0343
Concentration fluc. intensity (%)	: 58.82055	46.94254
Skewness	: -.0118852	.1181103
Kurtosis	: 2.246037	2.3616

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 185 406

Percentile: 9.33 9.33 9.78 20.56 35.00 76.83 95.72 99.00 99.94

Conc. (ppt): 2 6 22 76 142 263 359 406 460



Field Test 30
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:21 Dec 19 88
Test Stop Time: 08:31 Dec 20 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 6

Analyser B Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 12

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 10

STATIONARY STATISTICS (T30A04)

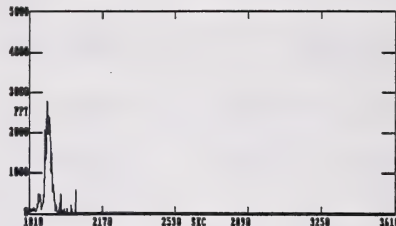
Scans : 10 to 9300
Date : 12-19-1988 Start Time : 20:38:57
Location: C0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
Transport from 227.49 deg
Power Law Cal. : ppt = 1501.4 *(voltage)^ 1.982
For volt > .7838 : ppt = 1183.7 *(voltage)^ 1.006

PERIOD # 2

Time : 21 : 8 : 59 to 21 : 38 : 58 (1800 s)
Maximum Concentration (ppt) : 2785
Peak (99 perc) to mean ratio : 36.3852
Plume intermittency : .1272222

	Total	Conditional
Mean Concentration (ppt)	55.90778	439.4498
Concentration fluc. intensity (%)	526.959	163.0951
Skewness	6.601796	1.848186
Kurtosis	48.10805	5.03811

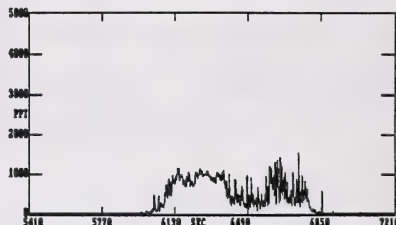
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 2034
Percentile: 89.06 90.28 91.83 95.94 97.44 98.17 98.67 99.33 99.89
Conc. (ppt): 2 11 53 258 570 1260 1873 2195 2573

**PERIOD # 4**

Time : 22 : 8 : 59 to 22 : 38 : 58 (1800 s)
Maximum Concentration (ppt) : 1536
Peak (99 perc) to mean ratio : 4.345592
Plume intermittency : .5027778

	Total	Conditional
Mean Concentration (ppt)	267.6111	532.2652
Concentration fluc. intensity (%)	135.9523	65.73148
Skewness	1.060583	.112474
Kurtosis	2.674562	1.781182

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1163
Percentile: 51.11 52.39 54.28 58.72 68.67 82.44 98.06 99.67 99.94
Conc. (ppt): 2 9 39 170 354 737 1064 1233 1427



STATIONARY STATISTICS (T30A06)

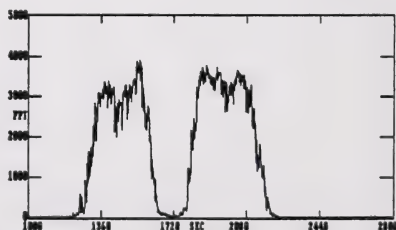
Scans : 1000 to 16500
Date : 12-19-1988 Start Time : 23:27:04
Location: C0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
Transport from 227.49 deg
Power Law Cal. : ppt = 1501.4 *(voltage)^ 1.982
For volt > .7838 : ppt = 1183.7 *(voltage)^ 1.006

PERIOD # 1

Time : 23 : 43 : 36 to 0 : 13 : 35 (1800 s)
Maximum Concentration (ppt) : 3893
Peak (99 perc) to mean ratio : 3.347943
Plume intermittency : .6733333

	Total	Conditional
Mean Concentration (ppt)	1132.609	1682.092
Concentration fluc. intensity (%)	126.2831	86.43649
Skewness	.6840612	8.73061E-03
Kurtosis	1.670531	1.254223

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 62 3792
Percentile: 38.56 42.94 50.00 57.89 60.06 66.00 72.22 79.50 96.94
Conc. (ppt): 2 12 62 326 745 1703 2575 3038 3584

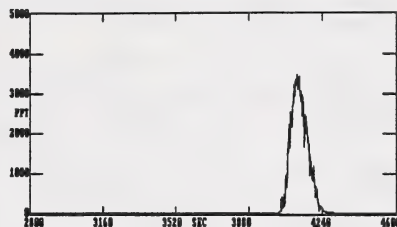


PERIOD # 2

Time : 0 : 13 : 36 to 0 : 43 : 35 (1800 s)
 Maximum Concentration (ppt) : 3473
 Peak (99 perc) to mean ratio : 17.72125
 Plume intermittency : .2288889

	Total	Conditional
Mean Concentration (ppt)	182.17	795.8884
Concentration fluc. intensity (%)	344.3579	139.3954
Skewness	3.742516	1.142073
Kurtosis	16.224	2.786554

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 3228
 Percentile: 81.17 84.78 87.78 90.78 92.00 94.28 96.44 97.56 98.89
 Conc. (ppt): 2 12 59 301 680 1537 2310 2719 3201

**STATIONARY STATISTICS (T30A08)**

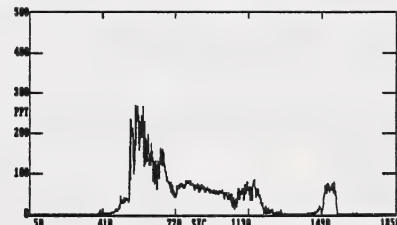
Scans : 50 to 11550
 Date : 12-20-1988 Start Time : 04:15:55
 Location: A1 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2464.2 m, East 965.4 m)
 Transport from 180.01 deg
 Power Law Cal. : ppt = 1501.4 *(voltage)^ 1.982
 For volt > .7838 : ppt = 1183.7 *(voltage)^ 1.006

PERIOD # 1

Time : 4 : 16 : 37 to 4 : 46 : 36 (1800 s)
 Maximum Concentration (ppt) : 270
 Peak (99 perc) to mean ratio : 6.555822
 Plume intermittency : .6061111

	Total	Conditional
Mean Concentration (ppt)	35.16111	58.011
Concentration fluc. intensity (%)	144.4528	93.31985
Skewness	1.944907	1.486704
Kurtosis	7.128708	5.387024

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 5 231
 Percentile: 42.56 50.56 56.78 67.33 90.44 95.56 98.00 98.94 99.61
 Conc. (ppt): 2 5 16 50 88 154 204 228 255

**STATIONARY STATISTICS (T30A09)**

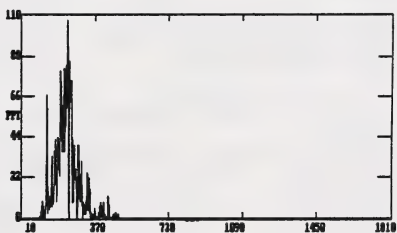
Scans : 10 to 3690
 Date : 12-20-1988 Start Time : 07:31:55
 Location: E5 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1980 m, East 1631.1 m)
 Transport from 252.04 deg
 Power Law Cal. : ppt = 1501.4 *(voltage)^ 1.982
 For volt > .7838 : ppt = 1183.7 *(voltage)^ 1.006

PERIOD # 1

Time : 7 : 31 : 57 to 8 : 1 : 56 (1800 s)
 Maximum Concentration (ppt) : 107
 Peak (99 perc) to mean ratio : 18.83466
 Plume intermittency : .1855556

	Total	Conditional
Mean Concentration (ppt)	3.622778	19.52395
Concentration fluc. intensity (%)	344.6444	117.8804
Skewness	4.517536	1.501959
Kurtosis	25.25381	4.543876

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 68
 Percentile: 84.67 88.33 91.06 95.06 97.22 98.94 99.78 99.83 99.89
 Conc. (ppt): 2 4 10 26 42 67 85 93 102



STATIONARY STATISTICS (T30B06)

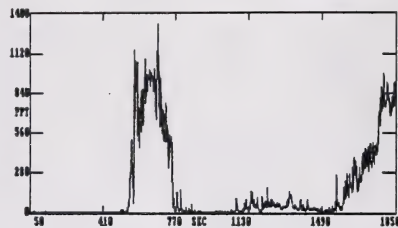
Scans : 50 to 4150
Date : 12-19-1988 Start Time : 22:26:59
Location: C4 on 700 m C Source : C Ground
Abs. Coordinates: (North 2318.3 m, East 1392.9 m)
Transport from 217.67 deg
Power Law Cal. : ppt = 496.3 *(voltage)^ 1.078

PERIOD # 1

Time : 22 : 27 : 41 to 22 : 57 : 40 (1800 s)
Maximum Concentration (ppt) : 1331
Peak (99 perc) to mean ratio : 6.452882
Plume intermittency : .6027778

	Total	Conditional
Mean Concentration (ppt)	162.3522	269.3401
Concentration fluc. intensity (%)	175.3813	120.6995
Skewness	1.810475	1.077232
Kurtosis	4.973036	2.734544

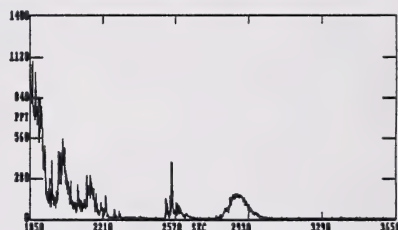
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 20 1048
Percentile: 39.72 43.06 59.61 75.06 79.83 88.17 96.89 99.44 99.94
Conc. (ppt): 2 9 36 154 316 648 929 1073 1239

**PERIOD # 2**

Time : 22 : 57 : 41 to 23 : 27 : 40 (1800 s)
Maximum Concentration (ppt) : 1095
Peak (99 perc) to mean ratio : 11.75878
Plume intermittency : .4816667

	Total	Conditional
Mean Concentration (ppt)	70.55666	146.4844
Concentration fluc. intensity (%)	222.7676	136.8195
Skewness	3.52806	2.389347
Kurtosis	16.47523	8.42025

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 830
Percentile: 51.83 56.22 66.56 84.39 93.33 96.61 98.61 99.39 99.89
Conc. (ppt): 2 8 33 134 270 544 772 888 1021

**STATIONARY STATISTICS (T30B07)**

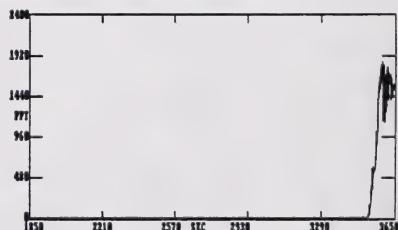
Scans : 50 to 14650
Date : 12-19-1988 Start Time : 23:39:14
Location: B0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2363.5 m, East 1327 m)
Transport from 211.12 deg
Power Law Cal. : ppt = 496.3 *(voltage)^ 1.078

PERIOD # 2

Time : 0 : 9 : 56 to 0 : 39 : 55 (1800 s)
Maximum Concentration (ppt) : 1851
Peak (99 perc) to mean ratio : 20.31198
Plume intermittency : 7.72222E-02

	Total	Conditional
Mean Concentration (ppt)	85.18445	1103.108
Concentration fluc. intensity (%)	402.9442	57.53553
Skewness	4.069334	-5.726411
Kurtosis	18.16644	1.744075

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1730
Percentile: 92.28 92.61 93.17 93.50 93.94 95.06 95.67 96.22 98.89
Conc. (ppt): 2 10 43 194 411 872 1271 1477 1717

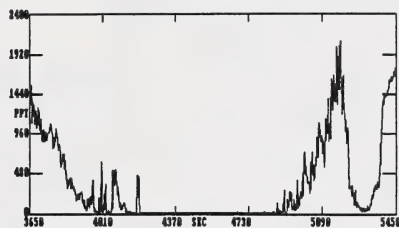


PERIOD # 3

Time : 0 : 39 : 56 to 1 : 9 : 55 (1800 s)
 Maximum Concentration (ppt) : 2085
 Peak (99 perc) to mean ratio : 5.281217
 Plume intermittency : .6027778

	Total	Conditional
Mean Concentration (ppt)	: 331.1861	549.4332
Concentration fluc. intensity (%)	: 146.1864	94.38972
Skewness	: 1.453759	.796847
Kurtosis	: 3.953965	2.437429

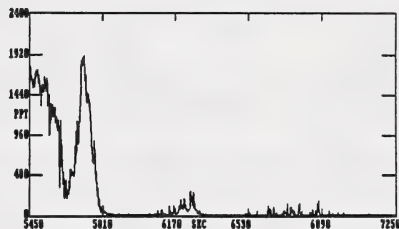
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 66 1749
 Percentile: 39.72 41.67 48.22 62.67 74.39 85.61 94.89 98.61 99.78
 Conc. (ppt): 2 10 46 211 452 971 1423 1658 1932

**PERIOD # 4**

Time : 1 : 9 : 56 to 1 : 39 : 55 (1800 s)
 Maximum Concentration (ppt) : 1899
 Peak (99 perc) to mean ratio : 7.927291
 Plume intermittency : .4333333

	Total	Conditional
Mean Concentration (ppt)	: 222.1339	512.6166
Concentration fluc. intensity (%)	: 216.4518	120.9777
Skewness	: 2.181549	.8982893
Kurtosis	: 6.299103	2.183595

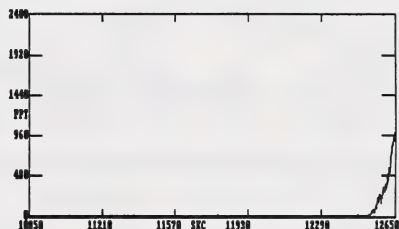
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1761
 Percentile: 56.67 59.06 70.67 80.67 83.50 87.67 91.83 94.28 99.00
 Conc. (ppt): 2 10 44 197 420 893 1302 1514 1761

**PERIOD # 7**

Time : 2 : 39 : 56 to 3 : 9 : 55 (1800 s)
 Maximum Concentration (ppt) : 995
 Peak (99 perc) to mean ratio : 32.10796
 Plume intermittency : 7.111111E-02

	Total	Conditional
Mean Concentration (ppt)	: 22.59389	317.7266
Concentration fluc. intensity (%)	: 487.0481	87.062
Skewness	: 6.012031	.9144347
Kurtosis	: 41.9352	2.740485

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 725
 Percentile: 92.89 93.00 93.78 95.11 96.67 98.44 98.94 99.22 99.83
 Conc. (ppt): 2 8 32 125 250 499 705 809 929

**PERIOD # 8**

Time : 3 : 9 : 56 to 3 : 39 : 55 (1800 s)
 Maximum Concentration (ppt) : 1163
 Peak (99 perc) to mean ratio : 17.2781
 Plume intermittency : .1716667

	Total	Conditional
Mean Concentration (ppt)	: 60.74833	353.8738
Concentration fluc. intensity (%)	: 344.3066	109.851
Skewness	: 3.809763	.7843269
Kurtosis	: 16.81574	2.105989

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1050
 Percentile: 82.83 83.44 89.11 90.83 92.33 95.44 96.72 97.06 99.61
 Conc. (ppt): 2 8 34 140 283 574 817 941 1084



STATIONARY STATISTICS (T30B09)

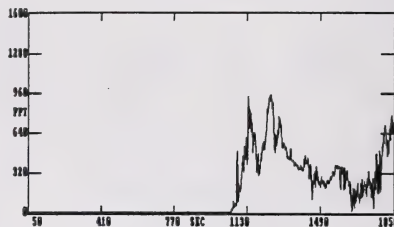
Scans : 50 to 11800
Date : 12-20-1988 Start Time : 03:51:26
Location: B0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2363.5 m, East 1327 m)
Transport from 211.12 deg
Power Law Cal. : ppt = 496.3 *(voltage)^ 1.078

PERIOD # 1

Time : 3 : 52 : 8 to 4 : 22 : 7 (1800 s)
Maximum Concentration (ppt) : 948
Peak (99 perc) to mean ratio : 5.111265
Plume intermittency : .4438889

	Total	Conditional
Mean Concentration (ppt)	171.5422	386.4531
Concentration fluc. intensity (%)	137.0504	52.69125
Skewness	1.217369	.6279051
Kurtosis	3.529726	2.923469

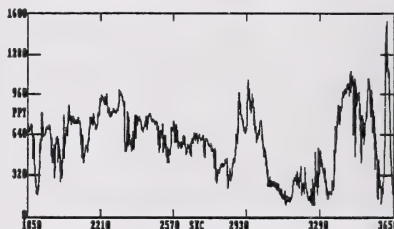
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 39 877
Percentile: 55.61 55.67 56.11 58.67 66.89 87.11 95.39 97.61 99.11
Conc. (ppt): 2 8 31 121 241 478 673 772 885

**PERIOD # 2**

Time : 4 : 22 : 8 to 4 : 52 : 7 (1800 s)
Maximum Concentration (ppt) : 1537
Peak (99 perc) to mean ratio : 2.039596
Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	584.7633	584.7633
Concentration fluc. intensity (%)	42.92214	42.92214
Skewness	5.674822E-02	5.674822E-02
Kurtosis	2.736525	2.736525

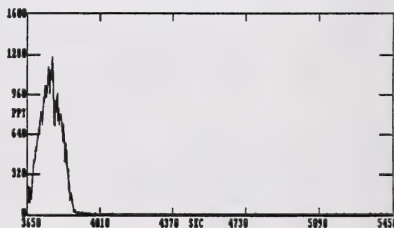
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 571 1193
Percentile: 0.00 0.00 0.00 5.00 22.28 71.44 97.78 99.39 99.72
Conc. (ppt): 2 9 39 170 354 738 1065 1233 1428

**PERIOD # 3**

Time : 4 : 52 : 8 to 5 : 22 : 7 (1800 s)
Maximum Concentration (ppt) : 1263
Peak (99 perc) to mean ratio : 13.55215
Plume intermittency : .1622222

	Total	Conditional
Mean Concentration (ppt)	81.24889	500.8493
Concentration fluc. intensity (%)	297.3051	77.20812
Skewness	3.064406	.1190682
Kurtosis	11.31534	1.643023

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 392 1101
Percentile: 83.78 84.67 87.28 88.44 90.11 92.78 96.67 98.33 99.61
Conc. (ppt): 2 9 36 148 303 618 884 1019 1176



STATIONARY STATISTICS (T30B10)

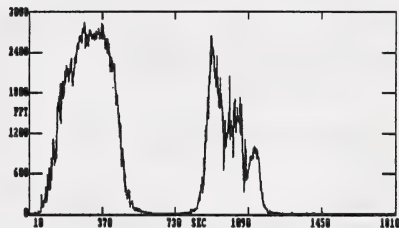
Scans : 10 to 4700
Date : 12-20-1988 Start Time : 07:13:42
Location: G1 on 700 m C Source : C Ground
Abs. Coordinates: (North 1663.9 m, East 1658 m)
Transport from 278.24 deg
Power Law Cal. : ppt = 496.3 *(voltage)^ 1.078

PERIOD # 1

Time : 7 : 13 : 44 to 7 : 43 : 43 (1800 s)
Maximum Concentration (ppt) : 2850
Peak (99 perc) to mean ratio : 4.291122
Plume intermittency : .6027778

	Total	Conditional
Mean Concentration (ppt)	654.0045	1084.984
Concentration fluc. intensity (%)	141.4444	89.92924
Skewness	1.123059	.3748819
Kurtosis	2.719949	1.641585

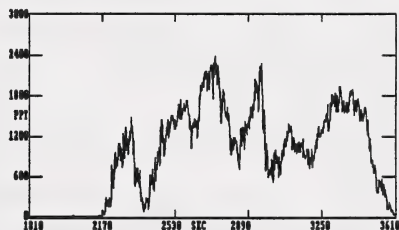
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 39 2806
Percentile: 39.72 44.39 52.83 60.00 65.22 75.22 83.33 88.83 95.00
Conc. (ppt): 2 11 53 262 581 1286 1915 2245 2632

**PERIOD # 2**

Time : 7 : 43 : 44 to 8 : 13 : 43 (1800 s)
Maximum Concentration (ppt) : 2375
Peak (99 perc) to mean ratio : 2.384097
Plume intermittency : .8066667

	Total	Conditional
Mean Concentration (ppt)	932.3289	1155.78
Concentration fluc. intensity (%)	72.13329	47.5807
Skewness	-4.880307E-02	-.2288174
Kurtosis	1.803813	2.375442

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 968 2223
Percentile: 19.33 19.61 20.72 26.11 31.28 54.94 82.22 93.17 98.83
Conc. (ppt): 2 10 49 231 502 1092 1610 1881 2197



STATIONARY STATISTICS (T30C12)

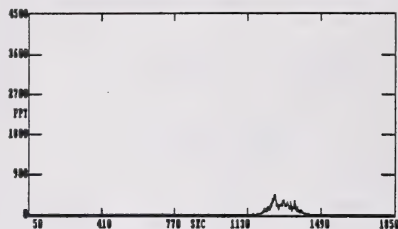
Scans : 50 to 13530
Date : 12-19-1988 Start Time : 19:13:09
Location: D5 on 700 m C Source : C Ground
Abs. Coordinates: (North 2159 m, East 1543.3 m)
Transport from 235.67 deg
Power Law Cal. : ppt = 1008.3 *(voltage)^ .857

PERIOD # 1

Time : 19 : 13 : 50 to 19 : 43 : 49 (1800 s)
Maximum Concentration (ppt) : 450
Peak (99 perc) to mean ratio : 15.10075
Plume intermittency : .1477778

	Total	Conditional
Mean Concentration (ppt)	21.15333	143.1429
Concentration fluc. intensity (%)	304.8169	72.16859
Skewness	3.463242	.5588922
Kurtosis	15.07352	2.519926

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 319
Percentile: 85.22 85.22 87.44 89.72 92.83 97.28 99.28 99.72 99.94
Conc. (ppt): 2 6 21 72 133 244 332 375 423

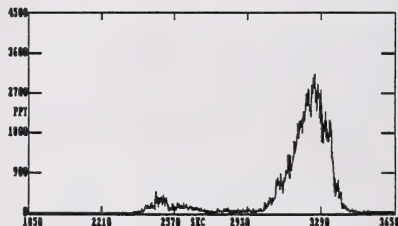


PERIOD # 2

Time : 19 : 43 : 50 to 20 : 13 : 49 (1800 s)
Maximum Concentration (ppt) : 3128
Peak (99 perc) to mean ratio : 8.454152
Plume intermittency : .7072222

	Total	Conditional
Mean Concentration (ppt)	332.0622	469.5302
Concentration fluc. intensity (%)	204.0608	162.8543
Skewness	2.436918	1.886683
Kurtosis	7.857432	5.285199

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 49 2807
Percentile: 29.28 31.28 53.44 79.06 84.28 89.94 94.89 96.78 99.50
Conc. (ppt): 2 11 56 280 625 1399 2092 2457 2886

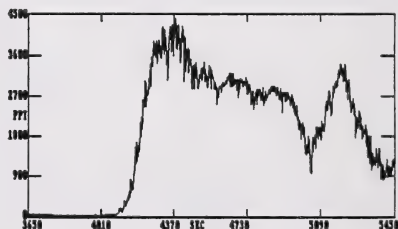


PERIOD # 3

Time : 20 : 13 : 50 to 20 : 43 : 49 (1800 s)
Maximum Concentration (ppt) : 4425
Peak (99 perc) to mean ratio : 2.239751
Plume intermittency : .8427778

	Total	Conditional
Mean Concentration (ppt)	1893.85	2247.152
Concentration fluc. intensity (%)	71.83395	52.69353
Skewness	-.24405	-.597577
Kurtosis	1.627642	2.315407

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 2133 4242
Percentile: 15.72 17.50 24.83 27.28 29.06 44.00 71.00 89.83 98.06
Conc. (ppt): 2 12 67 357 826 1911 2908 3440 4069

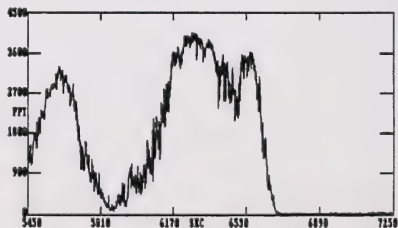


PERIOD # 4

Time : 20 : 43 : 50 to 21 : 13 : 49 (1800 s)
Maximum Concentration (ppt) : 4086
Peak (99 perc) to mean ratio : 2.774221
Plume intermittency : .7033333

	Total	Conditional
Mean Concentration (ppt)	1453.789	2066.999
Concentration fluc. intensity (%)	98.3305	61.91755
Skewness	.4002614	-.1361209
Kurtosis	1.564335	1.590443

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 1049 4033
Percentile: 29.67 29.67 32.11 38.33 46.28 59.89 71.33 81.33 93.83
Conc. (ppt): 2 12 64 337 775 1779 2696 3184 3760



STATIONARY STATISTICS (T30C14)

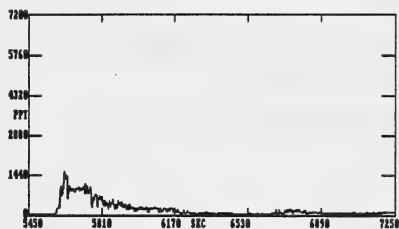
Scans : 50 to 13950
Date : 12-19-1988 Start Time : 23:10:23
Location: A0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2441.2 m, East 1143.4 m)
Transport from 194.75 deg
Power Law Cal. : $ppt = 1008.3 * (voltage)^{.857}$

PERIOD # 4

Time : 0 : 41 : 4 to 1 : 11 : 3 (1800 s)
Maximum Concentration (ppt) : 1554
Peak (99 perc) to mean ratio : 6.829088
Plume intermittency : .7366667

	Total	Conditional
Mean Concentration (ppt)	182.5344	247.7843
Concentration fluc. intensity (%)	154.4123	122.193
Skewness	2.264553	1.901666
Kurtosis	7.784942	5.968962

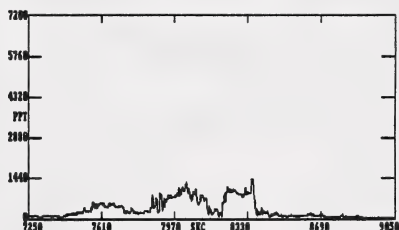
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 100 1247
Percentile: 26.33 26.33 33.00 70.28 84.61 91.83 98.83 99.00 99.61
Conc. (ppt): 2 9 39 171 357 745 1076 1247 1444

**PERIOD # 5**

Time : 1 : 11 : 4 to 1 : 41 : 3 (1800 s)
Maximum Concentration (ppt) : 1402
Peak (99 perc) to mean ratio : 3.621564
Plume intermittency : .9083334

	Total	Conditional
Mean Concentration (ppt)	311.4939	342.929
Concentration fluc. intensity (%)	103.7251	94.1063
Skewness	1.119734	1.034676
Kurtosis	3.093188	2.873577

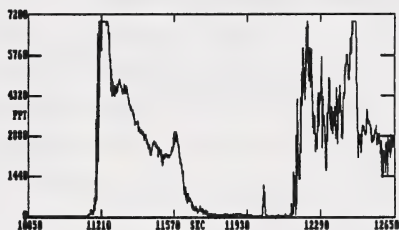
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 177 1128
Percentile: 9.17 9.17 13.22 48.06 66.39 81.56 95.33 99.00 99.56
Conc. (ppt): 2 9 37 159 329 679 976 1128 1304

**PERIOD # 7**

Time : 2 : 11 : 4 to 2 : 41 : 3 (1800 s)
Maximum Concentration (ppt) : 6989
Peak (99 perc) to mean ratio : 3.602817
Plume intermittency : .6755555

	Total	Conditional
Mean Concentration (ppt)	1900.949	2813.905
Concentration fluc. intensity (%)	109.0039	69.15488
Skewness	.7543846	.2852351
Kurtosis	2.49853	2.413272

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 1254 6849
Percentile: 32.44 32.89 38.28 46.22 49.28 68.39 86.61 92.61 95.78
Conc. (ppt): 2 14 84 491 1190 2884 4489 5359 6397



STATIONARY STATISTICS (T30C16)

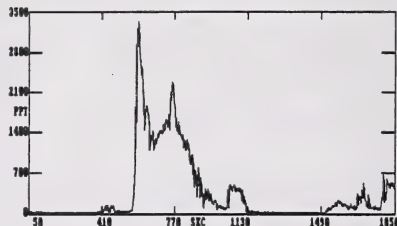
Scans : 50 to 12200
Date : 12-20-1988 Start Time : 03:55:27
Location: A0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2441.2 m, East 1143.4 m)
Transport from 194.75 deg
Power Law Cal. : $ppt = 1008.3 * (voltage)^{.857}$

PERIOD # 1

Time : 3 : 56 : 8 to 4 : 26 : 7 (1800 s)
Maximum Concentration (ppt) : 3339
Peak (99 perc) to mean ratio : 7.97008
Plume intermittency : .6016667

	Total	Conditional
Mean Concentration (ppt)	341.7845	568.0628
Concentration fluc. intensity (%)	175.7615	120.8446
Skewness	2.232599	1.543606
Kurtosis	7.786157	4.849029

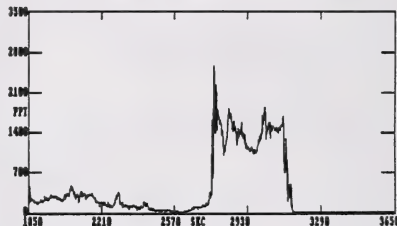
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 71 2724
Percentile: 39.83 40.17 48.61 73.06 83.22 93.17 98.22 98.83 99.56
Conc. (ppt): 2 11 58 293 659 1483 2226 2618 3079

**PERIOD # 2**

Time : 4 : 26 : 8 to 5 : 56 : 7 (1800 s)
Maximum Concentration (ppt) : 2561
Peak (99 perc) to mean ratio : 4.937562
Plume intermittency : .6994445

	Total	Conditional
Mean Concentration (ppt)	371.98	531.8221
Concentration fluc. intensity (%)	146.2089	109.3
Skewness	1.479839	.9998143
Kurtosis	3.662518	2.381722

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 136 1837
Percentile: 30.06 30.11 37.94 65.06 79.22 84.33 98.56 99.78 99.94
Conc. (ppt): 2 11 51 243 533 1168 1730 2024 2368



STATIONARY STATISTICS (T30C17)

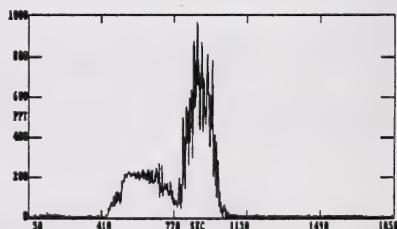
Scans : 50 to 4050
Date : 12-20-1988 Start Time : 07:23:36
Location: F3 on 700 m C Source : C Ground
Abs. Coordinates: (North 1823.5 m, East 1662.7 m)
Transport from 265.14 deg
Power Law Cal. : $ppt = 1008.3 * (voltage)^{.857}$

PERIOD # 1

Time : 7 : 24 : 17 to 7 : 54 : 16 (1800 s)
Maximum Concentration (ppt) : 967
Peak (99 perc) to mean ratio : 9.094279
Plume intermittency : .3333333

	Total	Conditional
Mean Concentration (ppt)	85.12666	255.38
Concentration fluc. intensity (%)	201.5379	82.90058
Skewness	2.567961	1.297119
Kurtosis	9.527342	3.802955

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 71 774
Percentile: 66.67 66.67 68.56 76.06 91.00 94.44 97.83 99.17 99.89
Conc. (ppt): 2 8 31 123 245 486 686 787 903



Field Test 31
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:50 Dec 20 88
Test Stop Time: 08:40 Dec 21 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 15

Analyser B Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 10

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 17

STATIONARY STATISTICS (T31A02)

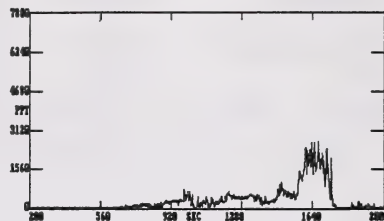
Scans : 200 to 14599
Date : 12-20-1988 Start Time : 17:51:35
Location: D6 on 700 m C Source : C Ground
Abs. Coordinates: (North 2142.3 m, East 1554.3 m)
Transport from 237.31 deg
Power Law Cal. : Time = 16.9166 , ppt = 1436.7 *(voltage)^ 2.1885
For volt > .8598 : ppt = 1200 *(voltage)^ .997
At time = 33.1 , ppt = 1747.4 *(voltage)^ 2.0605
For volt > .7023 : ppt = 1200 *(voltage)^ .997

PERIOD # 1

Time : 17 : 54 : 47 to 18 : 24 : 46 (1800 s)
Maximum Concentration (ppt) : 2674
Peak (99 perc) to mean ratio : 7.566373
Plume intermittency : .7377778

	Total	Conditional
Mean Concentration (ppt)	301.865	409.1544
Concentration fluc. intensity (%)	165.9581	133.0327
Skewness	2.504837	2.108628
Kurtosis	9.018132	6.840356

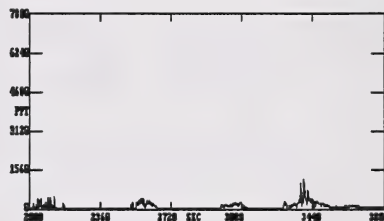
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 110 2284
Percentile: 31.94 34.72 43.67 65.17 86.17 92.22 95.94 98.28 99.78
Conc. (ppt): 2 11 52 251 552 1215 1802 2110 2471

**PERIOD # 2**

Time : 18 : 24 : 47 to 18 : 54 : 46 (1800 s)
Maximum Concentration (ppt) : 1156
Peak (99 perc) to mean ratio : 8.603168
Plume intermittency : .5505555

	Total	Conditional
Mean Concentration (ppt)	71.05222	129.0555
Concentration fluc. intensity (%)	174.239	110.5441
Skewness	3.555154	3.033684
Kurtosis	21.99005	16.64688

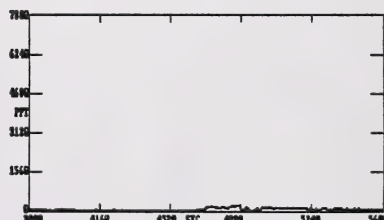
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 8 611
Percentile: 47.61 50.00 54.72 81.61 94.78 98.89 99.56 99.67 99.83
Conc. (ppt): 2 8 34 139 282 571 812 936 1077

**PERIOD # 3**

Time : 18 : 54 : 47 to 19 : 24 : 46 (1800 s)
Maximum Concentration (ppt) : 208
Peak (99 perc) to mean ratio : 3.71134
Plume intermittency : .8316666

	Total	Conditional
Mean Concentration (ppt)	50.89	61.19038
Concentration fluc. intensity (%)	90.29704	71.39822
Skewness	.8771101	.8266755
Kurtosis	3.363946	3.461581

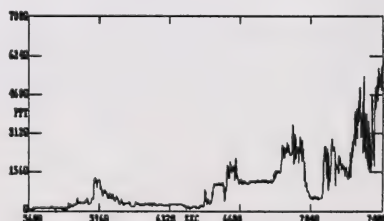
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 42 189
Percentile: 18.06 20.28 27.22 50.28 68.44 91.67 96.83 98.22 99.56
Conc. (ppt): 2 5 14 42 72 122 159 177 197

**PERIOD # 4**

Time : 19 : 24 : 47 to 19 : 54 : 46 (1800 s)
Maximum Concentration (ppt) : 5831
Peak (99 perc) to mean ratio : 4.957884
Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	1038.801	1038.801
Concentration fluc. intensity (%)	106.6737	106.6737
Skewness	1.707292	1.707292
Kurtosis	6.086655	6.086655

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 717 5150
Percentile: 0.00 0.00 3.06 43.56 57.06 89.39 96.44 97.89 99.33
Conc. (ppt): 2 13 76 433 1029 2450 3780 4495 5347

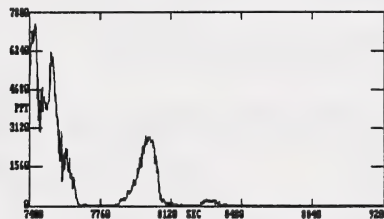


PERIOD # 5

Time : 19 : 54 : 47 to 20 : 24 : 46 (1800 s)
 Maximum Concentration (ppt) : 7382
 Peak (99 perc) to mean ratio : 10.38527
 Plume intermittency : .5933333

	Total	Conditional
Mean Concentration (ppt)	: 661.255	1114.475
Concentration fluc. intensity (%)	: 222.9529	159.4576
Skewness	: 2.637186	1.791357
Kurtosis	: 9.532026	5.374543

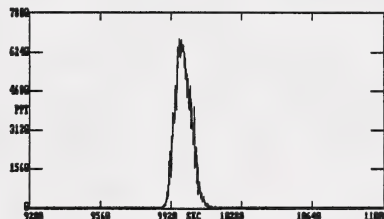
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 7 6867
 Percentile: 44.89 57.33 68.00 78.17 82.78 92.11 96.33 97.39 98.78
 Conc. (ppt): 2 14 86 510 1243 3029 4729 5651 6753

**PERIOD # 6**

Time : 20 : 24 : 47 to 20 : 54 : 46 (1800 s)
 Maximum Concentration (ppt) : 6799
 Peak (99 perc) to mean ratio : 17.5145
 Plume intermittency : .1783333

	Total	Conditional
Mean Concentration (ppt)	: 362.5322	2032.891
Concentration fluc. intensity (%)	: 345.2185	114.1769
Skewness	: 3.702636	.7404935
Kurtosis	: 15.82245	1.989293

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 6350
 Percentile: 83.89 85.83 87.72 90.56 92.00 93.83 95.94 97.28 98.72
 Conc. (ppt): 2 14 82 482 1164 2813 4373 5218 6225

**STATIONARY STATISTICS (T31A05)**

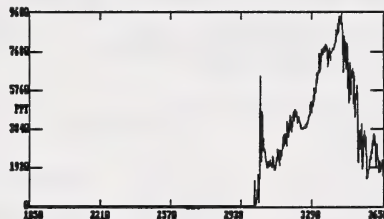
Scans : 51 to 7251
 Date : 12-21-1988 Start Time : 01:18:34
 Location: L8 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1078.4 m, East 825.1 m)
 Transport from 11.55 deg
 Power Law Cal. : Time = 16.9166 , ppt = 1436.7 *(voltage)^ 2.1885
 For volt > .8598 : ppt = 1200 *(voltage)^ .997
 At time = 33.1 , ppt = 1747.4 *(voltage)^ 2.0605
 For volt > .7023 : ppt = 1200 *(voltage)^ .997

PERIOD # 2

Time : 1 : 49 : 17 to 2 : 19 : 16 (1800 s)
 Maximum Concentration (ppt) : 9529
 Peak (99 perc) to mean ratio : 5.457238
 Plume intermittency : .455

	Total	Conditional
Mean Concentration (ppt)	: 1621.045	3562.736
Concentration fluc. intensity (%)	: 158.2839	77.13287
Skewness	: 1.435797	.3420707
Kurtosis	: 3.841442	2.060267

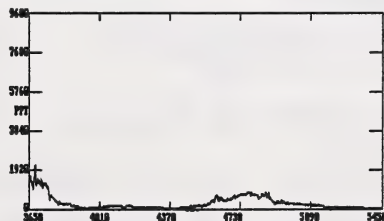
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 8 8846
 Percentile: 62.28 63.67 63.89 64.78 65.28 79.83 89.89 92.94 98.78
 Conc. (ppt): 2 16 98 610 1525 3812 6027 7239 8695

**PERIOD # 3**

Time : 2 : 19 : 17 to 2 : 49 : 16 (1800 s)
 Maximum Concentration (ppt) : 2136
 Peak (99 perc) to mean ratio : 5.574827
 Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	: 257.9517	257.9517
Concentration fluc. intensity (%)	: 127.9131	127.9131
Skewness	: 2.127576	2.127576
Kurtosis	: 7.859538	7.859538

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 144 1438
 Percentile: 0.22 0.39 28.39 65.50 80.00 94.83 99.17 99.56 99.89
 Conc. (ppt): 2 10 46 214 461 992 1456 1697 1978

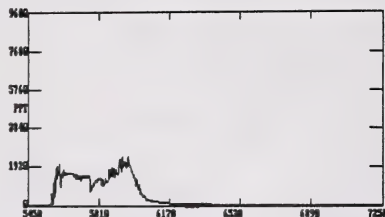


PERIOD # 4

Time : 2 : 49 : 17 to 3 : 19 : 16 (1800 s)
 Maximum Concentration (ppt) : 2415
 Peak (99 perc) to mean ratio : 5.623042
 Plume intermittency : .64

	Total	Conditional
Mean Concentration (ppt)	388.7011	607.3455
Concentration fluc. intensity (%)	163.8945	116.5817
Skewness	1.375958	.7031579
Kurtosis	3.33244	1.911496

 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 26 2186
 Percentile: 38.28 43.28 59.67 72.39 74.78 78.83 94.44 97.11 99.33
 Conc. (ppt): 2 10 49 233 509 1108 1636 1912 2234

**STATIONARY STATISTICS (T31A07)**

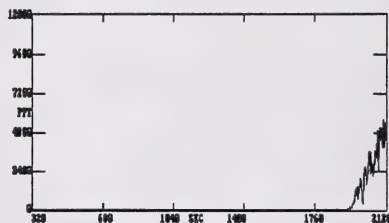
Scans : 320 to 14000
 Date : 12-21-1988 Start Time : 04:47:01
 Location: H8 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1352.1 m, East 1531 m)
 Transport from 306.07 deg
 Power Law Cal.: Time = 16.9166, ppt = 1436.7 *(voltage)^ 2.1885
 For volt > .8598 : ppt = 1200 *(voltage)^ .997
 At time = 33.1, ppt = 1747.4 *(voltage)^ 2.0605
 For volt > .7023 : ppt = 1200 *(voltage)^ .997

PERIOD # 1

Time : 4 : 52 : 13 to 5 : 22 : 12 (1800 s)
 Maximum Concentration (ppt) : 5658
 Peak (99 perc) to mean ratio : 18.88476
 Plume intermittency : .2344444

	Total	Conditional
Mean Concentration (ppt)	253.8061	1082.585
Concentration fluc. intensity (%)	353.4306	147.0702
Skewness	3.872265	1.264382
Kurtosis	17.62555	3.241032

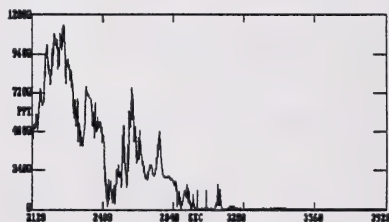
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 110 4793
 Percentile: 84.56 89.06 89.61 90.83 91.94 94.72 97.50 98.22 99.72
 Conc. (ppt): 2 13 75 424 1005 2384 3673 4366 5190

**PERIOD # 2**

Time : 5 : 22 : 13 to 5 : 52 : 12 (1800 s)
 Maximum Concentration (ppt) : 11391
 Peak (99 perc) to mean ratio : 5.21609
 Plume intermittency : .8805556

	Total	Conditional
Mean Concentration (ppt)	2043.604	2320.812
Concentration fluc. intensity (%)	146.3057	132.869
Skewness	1.410064	1.228769
Kurtosis	3.832107	3.329806

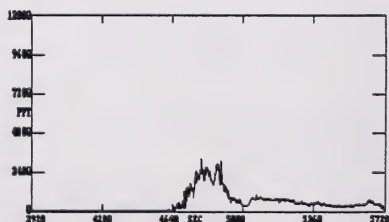
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 100 10660
 Percentile: 17.89 32.67 51.44 57.56 63.61 79.06 90.89 94.00 98.61
 Conc. (ppt): 3 16 107 691 1759 4476 7141 8607 10375

**PERIOD # 3**

Time : 5 : 52 : 13 to 6 : 22 : 12 (1800 s)
 Maximum Concentration (ppt) : 3199
 Peak (99 perc) to mean ratio : 5.858009
 Plume intermittency : .8477778

	Total	Conditional
Mean Concentration (ppt)	475.0389	560.3342
Concentration fluc. intensity (%)	134.1772	117.221
Skewness	1.989099	1.820236
Kurtosis	6.725698	5.939106

 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 324 2783
 Percentile: 16.28 25.33 40.44 47.00 73.50 91.11 94.89 97.83 99.72
 Conc. (ppt): 2 11 57 284 637 1427 2137 2511 2951

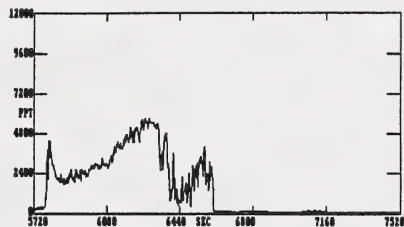


PERIOD # 4

Time : 6 : 22 : 13 to 6 : 52 : 12 (1800 s)
 Maximum Concentration (ppt) : 5669
 Peak (99 perc) to mean ratio : 3.877559
 Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	1433.332	1433.332
Concentration fluc. intensity (%)	122.1657	122.1657
Skewness	.8945786	.8945786
Kurtosis	2.49575	2.49575

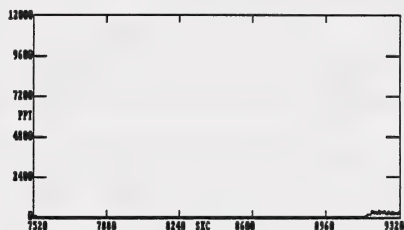
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 224 5558
 Percentile: 6.89 22.83 47.11 53.89 56.33 70.39 85.61 90.44 95.78
 Conc. (ppt): 2 13 75 424 1006 2389 3680 4374 5200

**PERIOD # 5**

Time : 6 : 52 : 13 to 7 : 22 : 12 (1800 s)
 Maximum Concentration (ppt) : 419
 Peak (99 perc) to mean ratio : 13.79376
 Plume intermittency : .2538889

	Total	Conditional
Mean Concentration (ppt)	22.46056	88.46608
Concentration fluc. intensity (%)	304.6714	126.9096
Skewness	3.319507	1.017161
Kurtosis	13.19354	2.58206

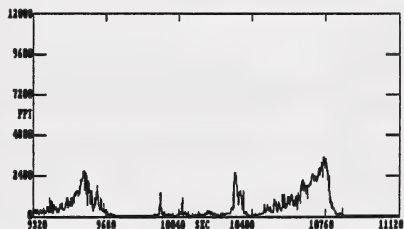
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 310
 Percentile: 77.78 82.39 86.94 91.11 91.78 95.72 99.00 99.50 99.83
 Conc. (ppt): 2 6 20 68 125 229 310 350 394

**PERIOD # 6**

Time : 7 : 22 : 13 to 7 : 52 : 12 (1800 s)
 Maximum Concentration (ppt) : 3452
 Peak (99 perc) to mean ratio : 6.121417
 Plume intermittency : .9261111

	Total	Conditional
Mean Concentration (ppt)	501.1945	541.1818
Concentration fluc. intensity (%)	146.5639	138.4011
Skewness	1.845673	1.743531
Kurtosis	5.762521	5.350998

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 185 3068
 Percentile: 16.72 27.28 37.39 61.39 74.67 89.39 94.83 98.11 99.28
 Conc. (ppt): 2 12 59 300 677 1528 2297 2704 3182



STATIONARY STATISTICS (T31B02)

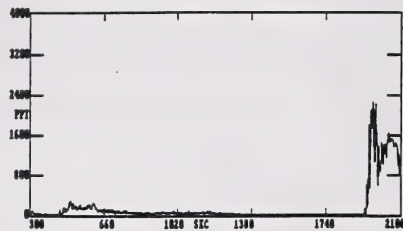
Scans : 300 to 15920
Date : 12-20-1988 Start Time : 17:51:35
Location: C0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
Transport from 227.49 deg
Power Law Cal. : ppt = 497.3 *(voltage)^ 1.076

PERIOD # 1

Time : 17 : 56 : 27 to 18 : 26 : 26 (1800 s)
Maximum Concentration (ppt) : 2244
Peak (99 perc) to mean ratio : 11.72864
Plume intermittency : .6094444

	Total	Conditional
Mean Concentration (ppt)	151.7906	249.0638
Concentration fluc. intensity (%)	257.4532	191.0229
Skewness	3.20022	2.308856
Kurtosis	12.2274	6.985034

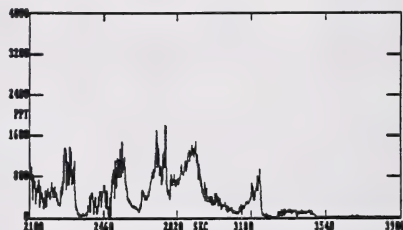
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 23 1780
Percentile: 39.06 41.11 67.11 90.22 91.33 92.78 98.06 99.00 99.67
Conc. (ppt): 2 10 47 222 480 1037 1526 1780 2077

**PERIOD # 2**

Time : 18 : 26 : 27 to 18 : 56 : 26 (1800 s)
Maximum Concentration (ppt) : 1810
Peak (99 perc) to mean ratio : 4.072511
Plume intermittency : .7694445

	Total	Conditional
Mean Concentration (ppt)	345.3761	448.8643
Concentration fluc. intensity (%)	109.3366	83.0227
Skewness	1.112228	.8880133
Kurtosis	3.368556	2.93967

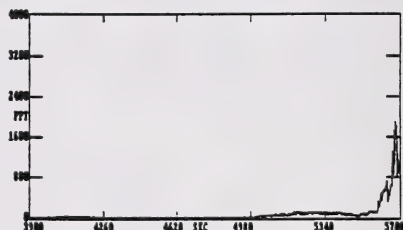
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 215 1407
Percentile: 23.06 23.56 28.44 48.00 65.33 87.33 96.67 99.56 99.83
Conc. (ppt): 2 9 43 191 404 855 1244 1445 1679

**PERIOD # 3**

Time : 18 : 56 : 27 to 19 : 26 : 26 (1800 s)
Maximum Concentration (ppt) : 1902
Peak (99 perc) to mean ratio : 16.49044
Plume intermittency : .5272222

	Total	Conditional
Mean Concentration (ppt)	70.42278	133.5732
Concentration fluc. intensity (%)	285.391	195.4825
Skewness	5.552889	4.080783
Kurtosis	38.59856	21.39001

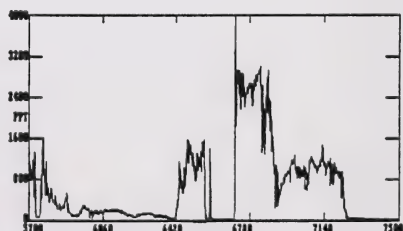
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 11 1161
Percentile: 47.28 49.56 65.72 94.17 95.39 98.17 99.44 99.44 99.72
Conc. (ppt): 2 10 44 197 420 894 1304 1516 1764

**PERIOD # 4**

Time : 19 : 26 : 27 to 19 : 56 : 26 (1800 s)
Maximum Concentration (ppt) : 4601
Peak (99 perc) to mean ratio : 5.483982
Plume intermittency : .8244445

	Total	Conditional
Mean Concentration (ppt)	529.985	642.8389
Concentration fluc. intensity (%)	133.7144	113.9524
Skewness	1.722206	1.506176
Kurtosis	5.560037	4.777732

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 256 2906
Percentile: 17.56 20.61 34.22 59.22 75.67 91.61 99.89 99.89 99.94
Conc. (ppt): 2 13 68 366 852 1980 3018 3572 4229



STATIONARY STATISTICS (T31B04)

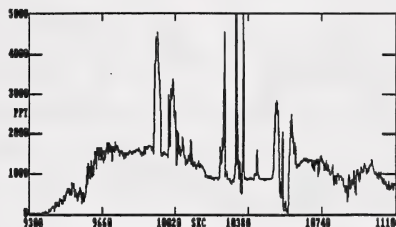
Scans : 9300 to 12960
Date : 12-20-1988 Start Time : 22:47:06
Location: C0 on 700 m C Source : C Ground
Abs. Coordinates: (North 2237.2 m, East 1481.2 m)
Transport from 227.49 deg
Power Law Cal. : $ppt = 497.3 * (voltage)^{1.076}$

PERIOD # 1

Time : 1 : 21 : 58 to 1 : 51 : 57 (1800 s)
Maximum Concentration (ppt) : 5539
Peak (99 perc) to mean ratio : 3.584634
Plume intermittency : .9627778

	Total	Conditional
Mean Concentration (ppt)	1152.633	1197.196
Concentration fluc. intensity (%)	62.46071	58.17132
Skewness	1.657707	1.88525
Kurtosis	8.88459	9.742016

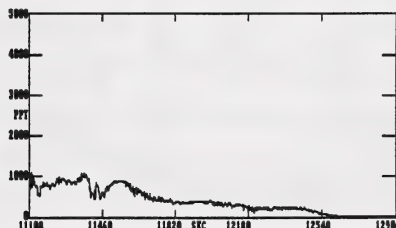
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 1154 4132
Percentile: 3.72 3.89 5.89 12.17 43.72 94.67 98.39 99.17 99.83
Conc. (ppt): 2 13 74 417 988 2339 3600 4277 5082

**PERIOD # 2**

Time : 1 : 51 : 58 to 2 : 21 : 57 (1800 s)
Maximum Concentration (ppt) : 1079
Peak (99 perc) to mean ratio : 2.654186
Plume intermittency : .8411111

	Total	Conditional
Mean Concentration (ppt)	383.0228	455.3771
Concentration fluc. intensity (%)	79.36897	60.90676
Skewness	.4616588	.4198742
Kurtosis	2.010268	1.911294

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 344 1017
Percentile: 15.89 15.94 18.17 22.83 42.00 70.17 81.11 93.00 98.83
Conc. (ppt): 2 8 33 133 267 537 761 875 1006

**STATIONARY STATISTICS (T31B07)**

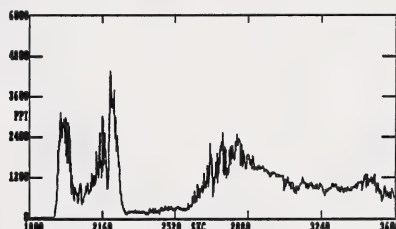
Scans : 1800 to 12755
Date : 12-21-1988 Start Time : 05:10:16
Location: F8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1723.6 m, East 1664 m)
Transport from 273.33 deg
Power Law Cal. : $ppt = 497.3 * (voltage)^{1.076}$

PERIOD # 1

Time : 5 : 40 : 8 to 6 : 10 : 7 (1800 s)
Maximum Concentration (ppt) : 4345
Peak (99 perc) to mean ratio : 3.347325
Plume intermittency : .935

	Total	Conditional
Mean Concentration (ppt)	975.7516	1043.585
Concentration fluc. intensity (%)	73.433	66.27139
Skewness	1.053653	1.153236
Kurtosis	4.747593	5.064458

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 1043 3266
Percentile: 6.50 6.50 6.72 25.78 39.11 89.78 98.00 99.28 99.72
Conc. (ppt): 2 12 66 352 814 1880 2858 3379 3996



PERIOD # 2

Time : 6 : 10 : 8 to 6 : 40 : 7 (1800 s)

Maximum Concentration (ppt) : 1193

Peak (99 perc) to mean ratio : 5.089201

Plume intermittency : .7144445

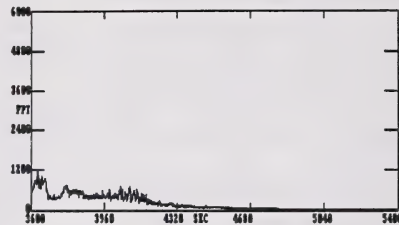
	Total	Conditional
Mean Concentration (ppt)	179.5206	251.2729
Concentration fluc. intensity (%)	126.0689	92.19205
Skewness	1.353918	.9941802
Kurtosis	4.324313	3.553284

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 79 914

Percentile: 28.56 28.67 41.44 62.39 69.83 94.33 98.33 99.44 99.83

Conc. (ppt): 2 8 35 142 289 587 837 965 1111

**PERIOD # 4**

Time : 7 : 10 : 8 to 7 : 40 : 7 (1800 s)

Maximum Concentration (ppt) : 806

Peak (99 perc) to mean ratio : 6.795746

Plume intermittency : .4644445

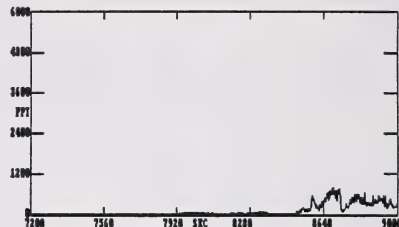
	Total	Conditional
Mean Concentration (ppt)	96.63834	208.073
Concentration fluc. intensity (%)	177.3459	96.18705
Skewness	1.816594	.7429114
Kurtosis	5.253597	2.409

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 256 657

Percentile: 53.56 53.56 66.06 75.22 79.67 91.33 97.33 99.06 99.83

Conc. (ppt): 2 7 28 108 211 413 577 659 754

**PERIOD # 5**

Time : 7 : 40 : 8 to 8 : 10 : 7 (1800 s)

Maximum Concentration (ppt) : 5698

Peak (99 perc) to mean ratio : 3.005038

Plume intermittency : 1

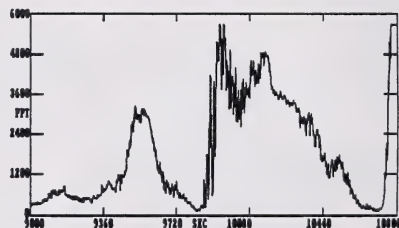
	Total	Conditional
Mean Concentration (ppt)	1831.886	1831.886
Concentration fluc. intensity (%)	84.8911	84.8911
Skewness	.7250646	.7250646
Kurtosis	2.285264	2.285264

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 1279 5505

Percentile: 0.00 0.00 0.00 18.11 46.67 63.94 85.28 92.44 97.56

Conc. (ppt): 2 13 75 426 1011 2400 3698 4396 5226



STATIONARY STATISTICS (T31C10)

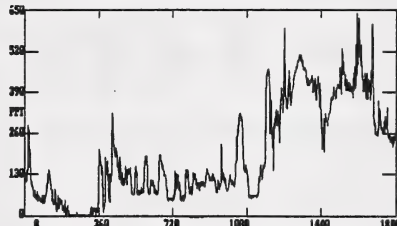
Scans : 1 to 7200
Date : 12-20-1988 Start Time : 19:10:00
Location: F0 on 700 m C Source : C Ground
Abs. Coordinates: (North 1683.8 m, East 1660.6 m)
Transport from 276.6 deg
Power Law Cal. : ppt = 962.8 *(voltage)^ .8935

PERIOD # 1

Time : 19 : 9 : 52 to 19 : 39 : 51 (1800 s)
Maximum Concentration (ppt) : 640
Peak (99 perc) to mean ratio : 2.714409
Plume intermittency : .9361111

	Total	Conditional
Mean Concentration (ppt)	192.9756	206.146
Concentration fluc. intensity (%)	79.5975	72.74674
Skewness	.6302365	.6047372
Kurtosis	2.066897	1.984301

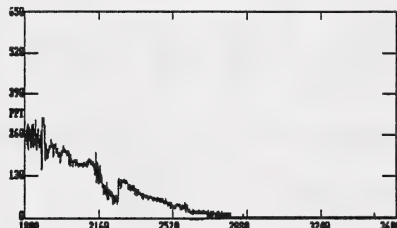
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 143 524
Percentile: 6.39 6.39 10.00 34.11 60.22 76.11 95.06 99.22 99.83
Conc. (ppt): 2 7 25 92 176 335 463 527 600

**PERIOD # 2**

Time : 19 : 39 : 52 to 20 : 9 : 51 (1800 s)
Maximum Concentration (ppt) : 313
Peak (99 perc) to mean ratio : 4.815194
Plume intermittency : .5272222

	Total	Conditional
Mean Concentration (ppt)	57.73833	109.5142
Concentration fluc. intensity (%)	138.9038	73.78744
Skewness	1.266315	.490128
Kurtosis	3.311401	1.972933

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 10 278
Percentile: 47.28 47.28 55.22 65.56 76.50 87.11 96.22 98.44 99.67
Conc. (ppt): 2 6 18 56 99 176 235 263 296

**STATIONARY STATISTICS (T31C11)**

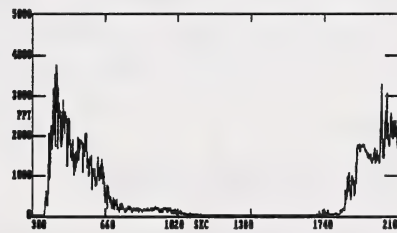
Scans : 300 to 12104
Date : 12-20-1988 Start Time : 21:12:53
Location: E9 on 700 m C Source : C Ground
Abs. Coordinates: (North 1902.7 m, East 1651.4 m)
Transport from 258.59 deg
Power Law Cal. : ppt = 962.8 *(voltage)^ .8935

PERIOD # 1

Time : 21 : 17 : 44 to 21 : 47 : 43 (1800 s)
Maximum Concentration (ppt) : 3765
Peak (99 perc) to mean ratio : 5.363472
Plume intermittency : .6261111

	Total	Conditional
Mean Concentration (ppt)	539.335	861.4046
Concentration fluc. intensity (%)	147.8961	99.78081
Skewness	1.391893	.7475972
Kurtosis	3.773308	2.394845

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 114 2893
Percentile: 37.39 37.39 45.61 67.11 71.72 86.17 97.17 99.22 99.89
Conc. (ppt): 2 12 61 318 725 1653 2494 2941 3467

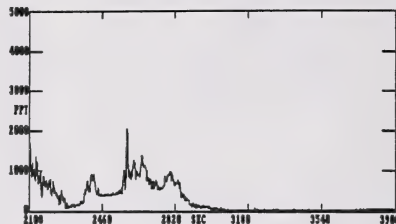


PERIOD # 2

Time : 21 : 47 : 44 to 22 : 17 : 43 (1800 s)
 Maximum Concentration (ppt) : 2023
 Peak (99 perc) to mean ratio : 4.913589
 Plume intermittency : .7272222

	Total	Conditional
Mean Concentration (ppt)	272.475	374.6791
Concentration fluc. intensity (%)	129.4377	97.24299
Skewness	1.223331	.8189917
Kurtosis	3.754738	3.018444

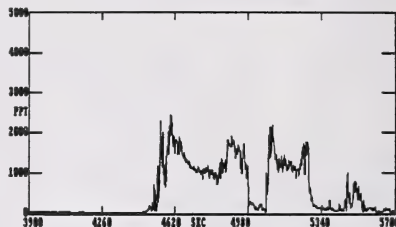
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 54 1339
 Percentile: 27.28 27.28 49.39 60.89 72.50 94.50 99.50 99.78 99.89
 Conc. (ppt): 2 10 45 206 441 945 1383 1610 1875

**PERIOD # 3**

Time : 22 : 17 : 44 to 22 : 47 : 43 (1800 s)
 Maximum Concentration (ppt) : 2442
 Peak (99 perc) to mean ratio : 3.694239
 Plume intermittency : .8188889

	Total	Conditional
Mean Concentration (ppt)	538.6906	657.8311
Concentration fluc. intensity (%)	117.8002	97.73696
Skewness	.8025755	.5101243
Kurtosis	2.168732	1.818911

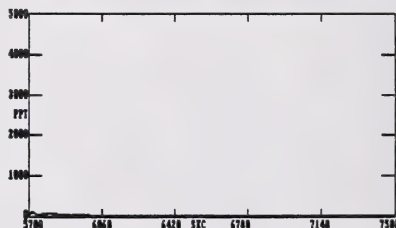
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 176 1990
 Percentile: 18.11 18.11 35.72 56.61 61.61 75.44 92.17 98.83 99.78
 Conc. (ppt): 2 10 49 235 513 1119 1653 1932 2259

**PERIOD # 4**

Time : 22 : 47 : 44 to 23 : 17 : 43 (1800 s)
 Maximum Concentration (ppt) : 95
 Peak (99 perc) to mean ratio : 12.92812
 Plume intermittency : .1405556

	Total	Conditional
Mean Concentration (ppt)	5.181667	36.86561
Concentration fluc. intensity (%)	279.4204	48.78053
Skewness	3.058983	.7499891
Kurtosis	12.27745	3.113762

 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 67
 Percentile: 85.94 85.94 85.94 90.89 93.72 98.61 99.50 99.61 99.89
 Conc. (ppt): 2 4 10 24 38 60 76 83 91

**STATIONARY STATISTICS (T31C13)**

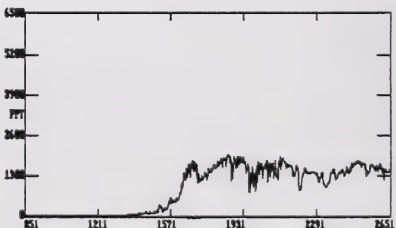
Scans : 851 to 15250
 Date : 12-21-1988 Start Time : 00:56:46
 Location: I9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1197.4 m, East 1375.9 m)
 Transport from 324.07 deg
 Power Law Cal. : ppt = 962.8 *(voltage)^ .8935

PERIOD # 1

Time : 1 : 10 : 48 to 1 : 40 : 47 (1800 s)
 Maximum Concentration (ppt) : 1999
 Peak (99 perc) to mean ratio : 2.191463
 Plume intermittency : .7688889

	Total	Conditional
Mean Concentration (ppt)	877.8422	1141.702
Concentration fluc. intensity (%)	82.66825	54.2541
Skewness	-.1759125	-.8675852
Kurtosis	1.249783	2.206422

 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 1119 1924
 Percentile: 23.11 24.89 30.83 37.44 39.89 44.17 57.83 80.11 98.06
 Conc. (ppt): 2 10 45 204 437 935 1367 1591 1853

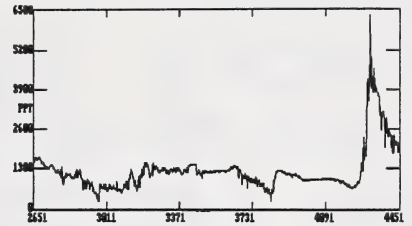


PERIOD # 2

Time : 1 : 40 : 48 to 2 : 10 : 47 (1800 s)
 Maximum Concentration (ppt) : 6334
 Peak (99 perc) to mean ratio : 3.486275
 Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	1220.065	1220.065
Concentration fluc. intensity (%)	57.43372	57.43372
Skewness	2.934768	2.934768
Kurtosis	13.33869	13.33869

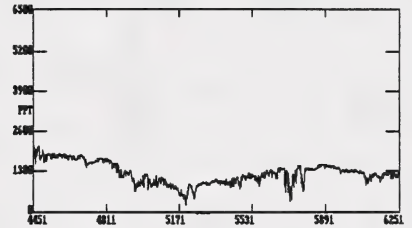
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 1132 4253
 Percentile: 0.00 0.00 0.00 1.33 49.06 94.78 98.78 99.83 99.89
 Conc. (ppt): 2 14 80 458 1100 2639 4089 4871 5803

**PERIOD # 3**

Time : 2 : 10 : 48 to 2 : 40 : 47 (1800 s)
 Maximum Concentration (ppt) : 2129
 Peak (99 perc) to mean ratio : 1.610063
 Plume intermittency : 1

	Total	Conditional
Mean Concentration (ppt)	1223.234	1223.234
Concentration fluc. intensity (%)	28.86914	28.86914
Skewness	1.042427	1.042427
Kurtosis	2.487101	2.487101

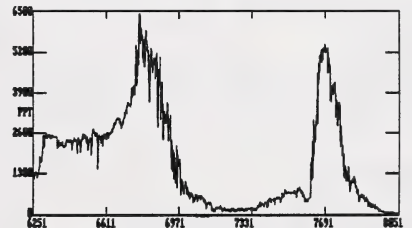
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 1208 1969
 Percentile: 0.00 0.00 0.00 0.06 1.17 28.94 73.39 86.44 99.11
 Conc. (ppt): 2 10 46 214 460 989 1451 1692 1972

**PERIOD # 4**

Time : 2 : 40 : 48 to 3 : 10 : 47 (1800 s)
 Maximum Concentration (ppt) : 6433
 Peak (99 perc) to mean ratio : 3.369513
 Plume intermittency : .9938889

	Total	Conditional
Mean Concentration (ppt)	1720.472	1731.051
Concentration fluc. intensity (%)	92.0444	91.42912
Skewness	.8265426	.8209083
Kurtosis	2.694572	2.686595

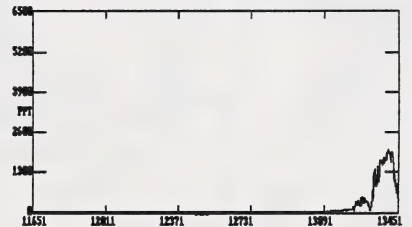
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 1148 5797
 Percentile: 0.61 1.06 4.67 31.11 49.39 76.83 89.78 94.06 99.56
 Conc. (ppt): 2 14 80 463 1114 2677 4149 4945 5893

**PERIOD # 7**

Time : 4 : 10 : 48 to 4 : 40 : 47 (1800 s)
 Maximum Concentration (ppt) : 2050
 Peak (99 perc) to mean ratio : 16.27614
 Plume intermittency : .1827778

	Total	Conditional
Mean Concentration (ppt)	114.9661	628.9939
Concentration fluc. intensity (%)	329.3927	107.9772
Skewness	3.669108	.7973983
Kurtosis	15.4909	2.008973

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1871
 Percentile: 81.72 81.72 85.22 89.50 92.94 94.22 95.94 97.11 99.22
 Conc. (ppt): 2 10 45 208 446 956 1400 1631 1899

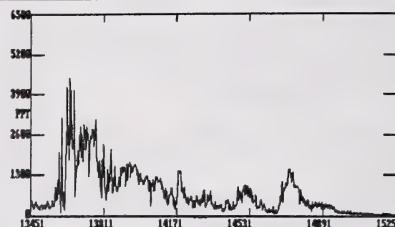


PERIOD # 8

Time : 4 : 40 : 48 to 5 : 10 : 47 (1800 s)
 Maximum Concentration (ppt) : 4410
 Peak (99 perc) to mean ratio : 4.587876
 Plume intermittency : .9483333

	Total	Conditional
Mean Concentration (ppt)	711.7717	750.5501
Concentration fluc. intensity (%)	102.3433	97.03769
Skewness	1.726231	1.712255
Kurtosis	6.415591	6.338733

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 490 3266
 Percentile: 5.17 5.17 12.94 43.39 66.39 92.44 98.50 99.22 99.72
 Conc. (ppt): 2 12 66 356 823 1905 2899 3429 4055

**STATIONARY STATISTICS (T31C15)**

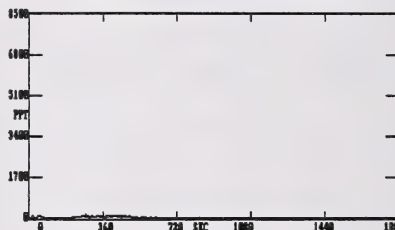
Scans : 70 to 11100
 Date : 12-21-1988 Start Time : 05:32:33
 Location: I9 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1197.4 m, East 1375.9 m)
 Transport from 324.07 deg
 Power Law Cal. : ppt = 962.8 *(voltage)^.8935

PERIOD # 1

Time : 5 : 33 : 34 to 6 : 3 : 33 (1800 s)
 Maximum Concentration (ppt) : 139
 Peak (99 perc) to mean ratio : 8.629026
 Plume intermittency : .2483333

	Total	Conditional
Mean Concentration (ppt)	14.11944	56.85682
Concentration fluc. intensity (%)	215.6404	63.49042
Skewness	2.228707	.3552101
Kurtosis	6.855084	1.842986

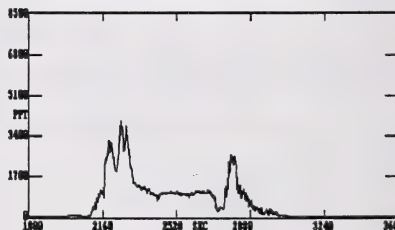
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 1119 122
 Percentile: 75.17 75.17 76.50 83.89 87.72 92.89 97.78 98.83 99.89
 Conc. (ppt): 2 4 12 32 52 85 109 120 132

**PERIOD # 2**

Time : 6 : 3 : 34 to 6 : 33 : 33 (1800 s)
 Maximum Concentration (ppt) : 4024
 Peak (99 perc) to mean ratio : 5.976484
 Plume intermittency : .6694444

	Total	Conditional
Mean Concentration (ppt)	599.9311	896.1627
Concentration fluc. intensity (%)	139.5334	98.63185
Skewness	1.70788	1.278378
Kurtosis	5.680155	4.320853

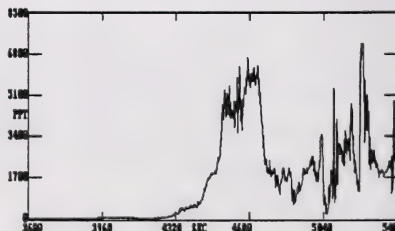
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 94 3585
 Percentile: 33.06 36.94 49.17 56.44 62.33 90.28 95.78 97.94 99.28
 Conc. (ppt): 2 12 63 334 765 1755 2657 3137 3703

**PERIOD # 3**

Time : 6 : 33 : 34 to 7 : 3 : 33 (1800 s)
 Maximum Concentration (ppt) : 7199
 Peak (99 perc) to mean ratio : 4.168675
 Plume intermittency : .8466667

	Total	Conditional
Mean Concentration (ppt)	1566.07	1849.689
Concentration fluc. intensity (%)	111.8461	95.17401
Skewness	1.1523	.9805902
Kurtosis	3.51098	3.162449

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 1138 6528
 Percentile: 15.33 15.33 34.33 41.61 51.06 82.39 90.78 95.17 99.22
 Conc. (ppt): 2 14 85 501 1218 2962 4618 5515 6587



PERIOD # 4

Time : 7 : 3 : 34 to 7 : 33 : 33 (1800 s)

Maximum Concentration (ppt) : 7199

Peak (99 perc) to mean ratio : 8.592928

Plume intermittency : .4322222

	Total	Conditional
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Mean Concentration (ppt) : 719.0533 1663.62

Concentration fluc. intensity (%) : 188.5096 98.3952

Skewness : 2.385591 1.322279

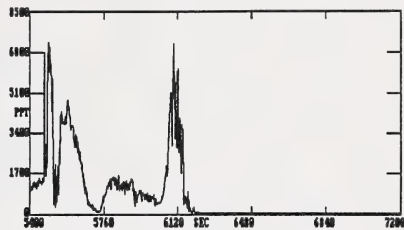
Kurtosis : 8.496826 4.034092

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 1148 6179

Percentile: 56.78 56.78 60.61 67.72 80.94 90.94 97.33 98.28 99.44

Conc. (ppt): 2 14 85 501 1218 2962 4618 5515 6587



PERIOD # 5

Time : 7 : 33 : 34 to 8 : 3 : 33 (1800 s)

Maximum Concentration (ppt) : 6826

Peak (99 perc) to mean ratio : 10.73348

Plume intermittency : .3044444

	Total	Conditional
--	-------	-------------

Mean Concentration (ppt) : 591.9867 1944.482

Concentration fluc. intensity (%) : 243.4009 105.2661

Skewness : 2.634896 .8036785

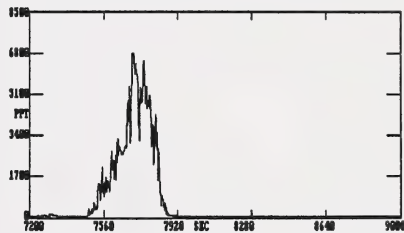
Kurtosis : 9.090065 2.38154

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 6354

Percentile: 69.56 70.06 77.61 82.00 84.22 90.78 94.44 97.28 98.78

Conc. (ppt): 2 14 83 483 1168 2823 4390 5238 6249



Field Test 32
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 17:10 Dec 21 88
Test Stop Time: 08:23 Dec 22 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary ***
Arc: C 700 m
Number of 30 minute Periods: 7

Analyser B Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 9

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 12

*** Analyser A has a calibration that exceeds the normal criteria used for the rest of the calibrations. For this reason, the data presented for Analyser A may not be reliable.

STATIONARY STATISTICS (T32A03)

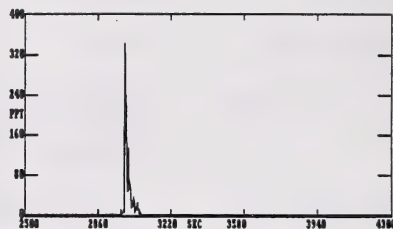
Scans : 2500 to 4300
Date : 12-21-1988 Start Time : 18:31:47
Location: J1 on 700 m C Source : C Ground
Abs. Coordinates: (North 1174.9 m, East 1342.9 m)
Transport from 327.35 deg
Power Law Cal. : Time = 16.06 , ppt = 2068.2 *(voltage)^ 2.4312
For volt > .7385 : ppt = 1312.6 *(voltage)^ .9317
At time = 32.98 , ppt = 1770.3 *(voltage)^ 1.9749
For volt > .7507 : ppt = 1312.6 *(voltage)^ .9317

PERIOD # 1

Time : 19 : 13 : 19 to 19 : 43 : 18 (1800 s)
Maximum Concentration (ppt) : 345
Peak (99 perc) to mean ratio : 32.04113
Plume intermittency : .06

	Total	Conditional
Mean Concentration (ppt)	3.004444	50.07407
Concentration fluc. intensity (%)	722.616	148.0893
Skewness	10.24643	2.126677
Kurtosis	120.9153	6.826526

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 96
Percentile: 94.44 95.28 97.11 98.44 99.17 99.44 99.83 99.89 99.94
Conc. (ppt): 2 6 19 60 107 192 258 290 325



STATIONARY STATISTICS (T32A04)

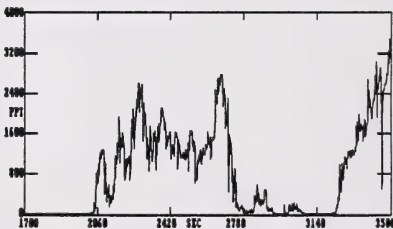
Scans : 1700 to 5300
Date : 12-21-1988 Start Time : 21:10:15
Location: J1 on 700 m C Source : C Ground
Abs. Coordinates: (North 1174.9 m, East 1342.9 m)
Transport from 327.35 deg
Power Law Cal. : Time = 16.06 , ppt = 2068.2 *(voltage)^ 2.4312
For volt > .7385 : ppt = 1312.6 *(voltage)^ .9317
At time = 32.98 , ppt = 1770.3 *(voltage)^ 1.9749
For volt > .7507 : ppt = 1312.6 *(voltage)^ .9317

PERIOD # 1

Time : 21 : 38 : 27 to 22 : 8 : 26 (1800 s)
Maximum Concentration (ppt) : 3465
Peak (99 perc) to mean ratio : 3.665118
Plume intermittency : .8105556

	Total	Conditional
Mean Concentration (ppt)	812.6445	1002.577
Concentration fluc. intensity (%)	105.5602	84.48393
Skewness	.6821448	.3966388
Kurtosis	2.313177	2.144329

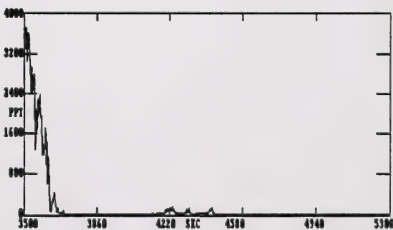
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 522 2978
Percentile: 22.83 29.61 35.22 46.78 52.28 78.72 92.56 98.11 99.72
Conc. (ppt): 2 12 59 300 679 1534 2305 2713 3194

**PERIOD # 2**

Time : 22 : 8 : 27 to 22 : 38 : 26 (1800 s)
Maximum Concentration (ppt) : 3731
Peak (99 perc) to mean ratio : 19.89728
Plume intermittency : .4605556

	Total	Conditional
Mean Concentration (ppt)	161.6789	351.0519
Concentration fluc. intensity (%)	366.5591	237.6729
Skewness	4.154964	2.548746
Kurtosis	19.87896	8.358627

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 3217
Percentile: 70.56 76.11 86.67 92.61 93.39 95.22 97.44 98.39 99.44
Conc. (ppt): 2 12 61 316 720 1639 2473 2915 3436



STATIONARY STATISTICS (T32A07)

Scans : 3880 to 11080

Date : 12-21-1988 Start Time : 23:31:19

Location: I5 on 700 m C Source : C Ground

Abs. Coordinates: (North 1247.9 m, East 1437.9 m)

Transport from 317.53 deg

Power Law Cal. : Time = 16.06 , ppt = 2068.2 *(voltage)^ 2.4312

For volt > .7385 : ppt = 1312.6 *(voltage)^ .9317

At time = 32.98 , ppt = 1770.3 *(voltage)^ 1.9749

For volt > .7507 : ppt = 1312.6 *(voltage)^ .9317

PERIOD # 1

Time : 0 : 35 : 51 to 1 : 5 : 50 (1800 s)

Maximum Concentration (ppt) : 1706

Peak (99 perc) to mean ratio : 15.11438

Plume intermittency : .1472222

	Total	Conditional
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Mean Concentration (ppt) : 96.62722 656.3359

Concentration fluc. intensity (%) : 294.9722 65.4356

Skewness : 3.358365 .6105434

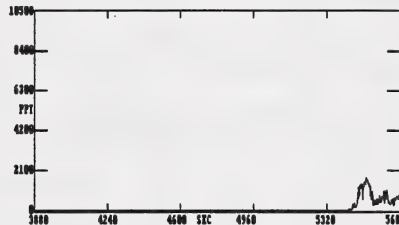
Kurtosis : 14.32362 2.600379

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 522 1460

Percentile: 85.56 85.89 86.06 87.17 89.22 95.78 97.61 98.61 99.50

Conc. (ppt): 2 9 41 183 385 811 1176 1365 1584

**PERIOD # 2**

Time : 1 : 5 : 51 to 1 : 35 : 50 (1800 s)

Maximum Concentration (ppt) : 433

Peak (99 perc) to mean ratio : 24.61949

Plume intermittency : 7.388889E-02

	Total	Conditional
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Mean Concentration (ppt) : 10.94389 148.1128

Concentration fluc. intensity (%) : 443.3074 72.52338

Skewness : 4.935379 .2537932

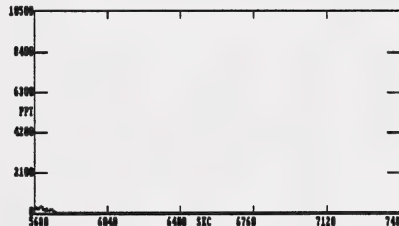
Kurtosis : 28.47616 2.297968

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 269

Percentile: 92.94 93.83 94.28 94.61 95.50 98.56 99.67 99.89 99.89

Conc. (ppt): 2 6 21 70 129 236 320 361 407

**PERIOD # 3**

Time : 1 : 35 : 51 to 2 : 5 : 50 (1800 s)

Maximum Concentration (ppt) : 10388

Peak (99 perc) to mean ratio : 29.86689

Plume intermittency : .3255556

	Total	Conditional
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Mean Concentration (ppt) : 297.6144 914.1741

Concentration fluc. intensity (%) : 454.9837 246.2699

Skewness : 5.639315 2.931748

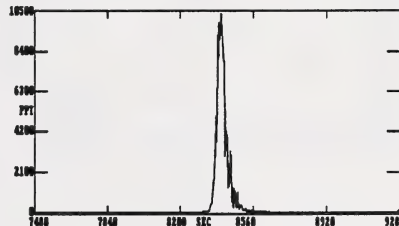
Kurtosis : 35.50107 10.60354

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 8889

Percentile: 73.50 79.67 88.78 93.56 95.33 97.44 98.06 98.22 99.44

Conc. (ppt): 3 16 102 648 1634 4120 6542 7871 9470



STATIONARY STATISTICS (T32A09)

Scans : 1 to 2000

Date : 12-22-1988 Start Time : 02:41:42

Location: I5 on 700 m C Source : C Ground

Abs. Coordinates: (North 1247.9 m, East 1437.9 m)

Transport from 317.53 deg

Power Law Cal. : Time = 16.06 , ppt = 2068.2 *(voltage)^ 2.4312

For volt > .7385 : ppt = 1312.6 *(voltage)^ .9317

At time = 32.98 , ppt = 1770.3 *(voltage)^ 1.9749

For volt > .7507 : ppt = 1312.6 *(voltage)^ .9317

PERIOD # 1

Time : 2 : 41 : 35 to 3 : 11 : 34 (1800 s)

Maximum Concentration (ppt) : 964

Peak (99 perc) to mean ratio : 14.4286

Plume intermittency : .2811111

	<u>Total</u>	<u>Conditional</u>
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Mean Concentration (ppt)	: 47.14833	167.7213
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Concentration fluc. intensity (%)	: 296.8289	132.5862
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Skewness	: 3.563101	1.397749
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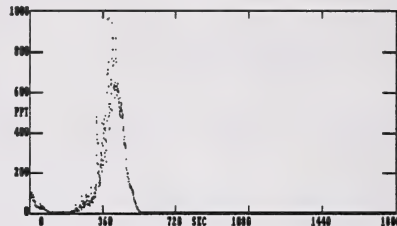
Kurtosis	: 15.56965	3.801399
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Percentile: 50 99 (Interpolated)

Conc. (ppt) : 522 680

Percentile: 74.78 77.89 83.17 90.17 92.72 95.83 99.06 99.67 99.89

Conc. (ppt): 2 8 31 123 244 485 684 784 900

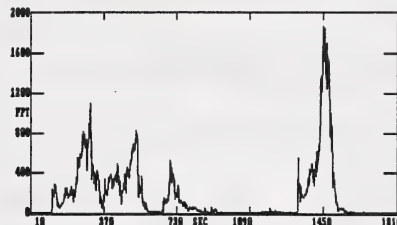


STATIONARY STATISTICS (T32B08)

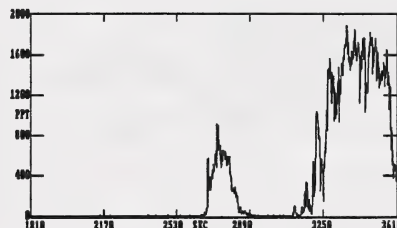
Scans : 10 to 9800
Date : 12-21-1988 Start Time : 18:32:17
Location: J8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1111.6 m, East 1218.3 m)
Transport from 338.81 deg
Power Law Cal. : ppt = 499.9 *(voltage)^ 1.067

PERIOD # 1

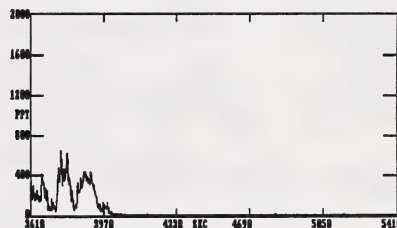
Time : 18 : 32 : 19 to 19 : 2 : 18 (1800 s)
Maximum Concentration (ppt) : 1872
Peak (99 perc) to mean ratio : 9.21533
Plume intermittency : .5938889
Total Conditional
Mean Concentration (ppt) : 171.2655 288.3798
Concentration fluc. intensity (%) : 172.5187 116.6818
Skewness : 2.806805 2.203611
Kurtosis : 12.37285 8.53029
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 30 1578
Percentile: 40.61 44.44 53.78 71.28 87.11 96.83 97.89 98.61 99.72
Conc. (ppt): 2 10 43 195 415 881 1284 1493 1736

**PERIOD # 2**

Time : 19 : 2 : 19 to 19 : 32 : 18 (1800 s)
Maximum Concentration (ppt) : 1885
Peak (99 perc) to mean ratio : 5.353213
Plume intermittency : .4255556
Total Conditional
Mean Concentration (ppt) : 335.6811 788.8068
Concentration fluc. intensity (%) : 168.5526 79.65913
Skewness : 1.466649 .1835661
Kurtosis : 3.554772 1.461308
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1797
Percentile: 57.44 58.61 64.17 68.78 73.17 81.83 85.56 91.39 98.44
Conc. (ppt): 2 10 43 196 417 887 1293 1503 1748

**PERIOD # 3**

Time : 19 : 32 : 19 to 20 : 2 : 18 (1800 s)
Maximum Concentration (ppt) : 644
Peak (99 perc) to mean ratio : 9.152122
Plume intermittency : .2383333
Total Conditional
Mean Concentration (ppt) : 50.76556 213.0023
Concentration fluc. intensity (%) : 228.7904 69.70583
Skewness : 2.432641 .4316295
Kurtosis : 8.149051 2.285909
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 465
Percentile: 76.17 76.17 78.28 83.61 87.28 94.11 99.06 99.50 99.78
Conc. (ppt): 2 7 25 93 177 337 466 530 604



STATIONARY STATISTICS (T32B09)

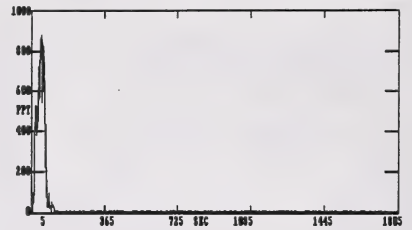
Scans : 5 to 2400
Date : 12-21-1988 Start Time : 21:21:40
Location: J8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1111.6 m, East 1218.3 m)
Transport from 338.81 deg
Power Law Cal. : ppt = 499.9 *(voltage)^ 1.067

PERIOD # 1

Time : 21 : 21 : 37 to 21 : 51 : 36 (1800 s)
Maximum Concentration (ppt) : 883
Peak (99 perc) to mean ratio : 34.47047
Plume intermittency : .065

	Total	Conditional
Mean Concentration (ppt)	20.89944	321.5299
Concentration fluc. intensity (%)	532.4811	95.28823
Skewness	5.882223	.4525082
Kurtosis	37.83733	1.651378

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 720
Percentile: 93.50 93.78 95.17 96.56 96.83 97.56 98.56 99.00 99.56
Conc. (ppt): 2 8 30 115 227 448 629 720 825



STATIONARY STATISTICS (T32B11)

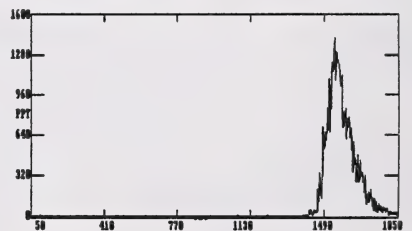
Scans : 50 to 9000
Date : 12-21-1988 Start Time : 22:10:28
Location: J8 on 700 m C Source : C Ground
Abs. Coordinates: (North 1111.6 m, East 1218.3 m)
Transport from 338.81 deg
Power Law Cal. : ppt = 499.9 *(voltage)^ 1.067

PERIOD # 1

Time : 22 : 11 : 10 to 22 : 41 : 9 (1800 s)
Maximum Concentration (ppt) : 1419
Peak (99 perc) to mean ratio : 13.13713
Plume intermittency : .2411111

	Total	Conditional
Mean Concentration (ppt)	94.83667	393.3318
Concentration fluc. intensity (%)	271.8027	101.1118
Skewness	3.132688	.9058345
Kurtosis	12.29278	2.570355

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1246
Percentile: 75.89 75.89 80.06 86.72 89.89 94.28 96.94 98.06 99.67
Conc. (ppt): 2 9 38 161 332 687 987 1141 1320



STATIONARY STATISTICS (T32B12)

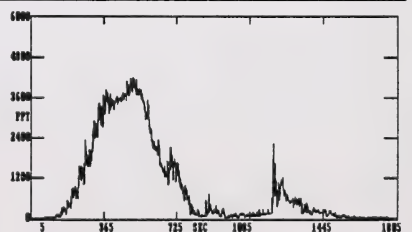
Scans : 5 to 7215
Date : 12-22-1988 Start Time : 00:45:12
Location: H4 on 700 m C Source : C Ground
Abs. Coordinates: (North 1419.3 m, East 1574.3 m)
Transport from 299.52 deg
Power Law Cal. : ppt = 499.9 *(voltage)^ 1.067

PERIOD # 1

Time : 0 : 45 : 9 to 1 : 15 : 8 (1800 s)
Maximum Concentration (ppt) : 4217
Peak (99 perc) to mean ratio : 4.455914
Plume intermittency : .9583333

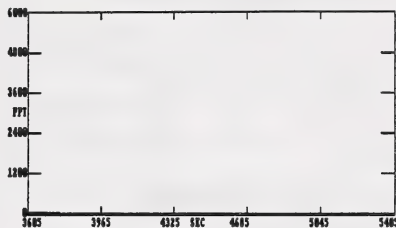
	Total	Conditional
Mean Concentration (ppt)	907.4067	946.8591
Concentration fluc. intensity (%)	136.2475	131.8075
Skewness	1.357809	1.29917
Kurtosis	3.39311	3.227158

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 284 4043
Percentile: 4.17 6.78 25.33 56.89 67.72 79.94 85.89 88.83 98.06
Conc. (ppt): 2 12 65 345 794 1830 2778 3283 3879

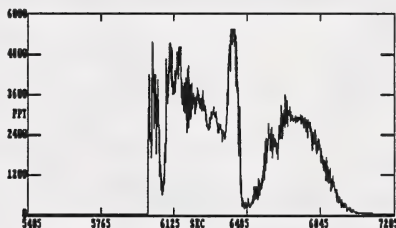


PERIOD # 3

Time : 1 : 45 : 9 to 2 : 15 : 8 (1800 s)
 Maximum Concentration (ppt) : 53
 Peak (99 perc) to mean ratio : 14.58296
 Plume intermittency : .1327778
 Mean Concentration (ppt) : Total Conditional
 : 2.492222 18.76987
 Concentration fluc. intensity (%) : 293.1004 52.29176
 Skewness : 3.479648 1.373196
 Kurtosis : 16.34539 4.561615
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 36
 Percentile: 86.72 86.72 86.83 93.61 96.94 98.94 99.56 99.72 99.83
 Conc. (ppt): 1 3 7 16 24 36 43 47 51

**PERIOD # 4**

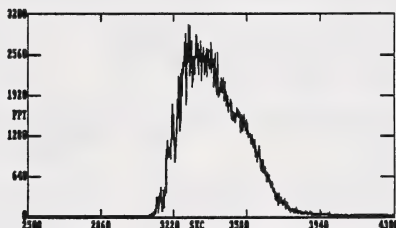
Time : 2 : 15 : 9 to 2 : 45 : 8 (1800 s)
 Maximum Concentration (ppt) : 5547
 Peak (99 perc) to mean ratio : 3.911701
 Plume intermittency : .6405556
 Mean Concentration (ppt) : Total Conditional
 : 1336.964 2087.194
 Concentration fluc. intensity (%) : 116.166 71.06026
 Skewness : .7582948 .1233833
 Kurtosis : 2.287488 2.072947
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 388 5230
 Percentile: 35.94 38.67 43.44 50.61 56.61 68.06 90.89 95.78 98.56
 Conc. (ppt): 2 13 74 418 989 2342 3605 4283 5089

**STATIONARY STATISTICS (T32B14)**

Scans : 700 to 12300
 Date : 12-22-1988 Start Time : 02:55:41
 Location: H4 on 700 m C Source : C Ground
 Abs. Coordinates: (North 1419.3 m, East 1574.3 m)
 Transport from 299.52 deg
 Power Law Cal. : ppt = 499.9 *(voltage)^ 1.067

PERIOD # 2

Time : 3 : 37 : 13 to 4 : 7 : 12 (1800 s)
 Maximum Concentration (ppt) : 3041
 Peak (99 perc) to mean ratio : 5.178618
 Plume intermittency : .6316667
 Mean Concentration (ppt) : Total Conditional
 : 534.1478 845.6165
 Concentration fluc. intensity (%) : 159.366 111.173
 Skewness : 1.382132 .7011256
 Kurtosis : 3.399629 1.957501
 Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 33 2766
 Percentile: 36.83 41.06 58.89 67.89 72.11 80.11 88.94 93.33 99.61
 Conc. (ppt): 2 11 55 274 612 1364 2036 2391 2807

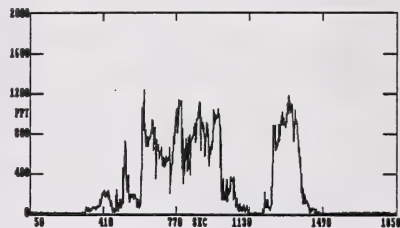


STATIONARY STATISTICS (T32C12)

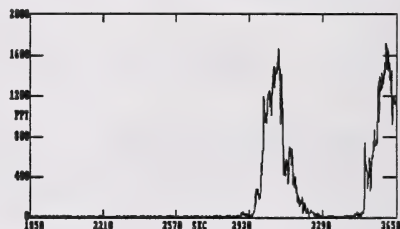
Scans : 50 to 12100
Date : 12-21-1988 Start Time : 18:51:06
Location: K5 on 700 m C Source : C Ground
Abs. Coordinates: (North 1074.3 m, East 1083.6 m)
Transport from 350.27 deg
Power Law Cal. : $ppt = 1037 * (voltage)^{.8106}$

PERIOD # 1

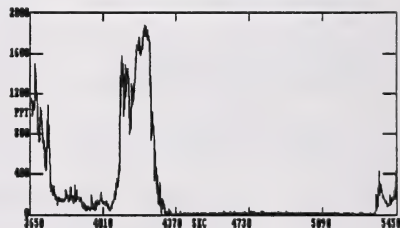
Time : 18 : 51 : 47 to 19 : 21 : 46 (1800 s)
Maximum Concentration (ppt) : 1234
Peak (99 perc) to mean ratio : 4.121046
Plume intermittency : .5894445
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 271.7689 461.0594
Skewness : 131.6488 78.16871
Kurtosis : 1.005117 .2463064
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 74 1120
Percentile: 41.06 41.06 44.83 59.72 67.83 75.78 89.06 95.72 99.78
Conc. (ppt): 2 8 35 146 297 606 864 997 1149

**PERIOD # 2**

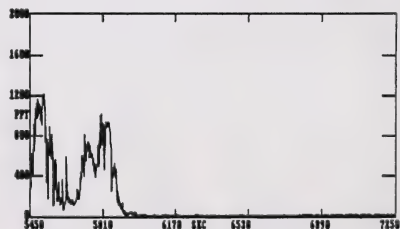
Time : 19 : 21 : 47 to 19 : 51 : 46 (1800 s)
Maximum Concentration (ppt) : 1708
Peak (99 perc) to mean ratio : 8.431924
Plume intermittency : .315
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 186.3561 591.6067
Skewness : 219.728 91.42389
Kurtosis : 2.228182 .4899406
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 33 1571
Percentile: 68.50 68.50 75.11 79.83 83.22 89.50 93.00 95.78 99.22
Conc. (ppt): 2 9 41 183 385 811 1177 1366 1585

**PERIOD # 3**

Time : 19 : 51 : 47 to 20 : 21 : 46 (1800 s)
Maximum Concentration (ppt) : 1892
Peak (99 perc) to mean ratio : 8.063233
Plume intermittency : .47
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 224.7433 478.1773
Skewness : 199.6631 115.9169
Kurtosis : 2.265404 1.165068
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1812
Percentile: 53.00 53.00 58.44 79.33 84.33 88.39 93.78 96.06 98.28
Conc. (ppt): 2 10 43 197 418 890 1297 1509 1754

**PERIOD # 4**

Time : 20 : 21 : 47 to 20 : 51 : 46 (1800 s)
Maximum Concentration (ppt) : 1217
Peak (99 perc) to mean ratio : 8.17198
Plume intermittency : .2877778
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 133.3072 463.2297
Skewness : 206.8652 72.06048
Kurtosis : 2.107247 .3553921
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 388 1089
Percentile: 71.22 71.22 73.67 78.06 82.72 89.67 95.11 97.67 99.56
Conc. (ppt): 2 8 35 144 294 598 853 983 1134



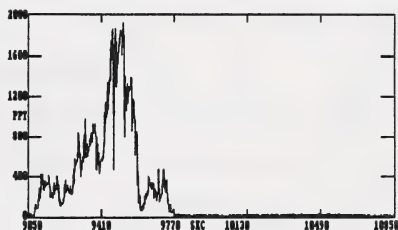
PERIOD # 5

Time : 20 : 51 : 47 to 21 : 21 : 46 (1800 s)
Maximum Concentration (ppt) : 417
Peak (99 perc) to mean ratio : 20.11502
Plume intermittency : .1177778
Total Conditional
Mean Concentration (ppt) : 14.87167 126.2689
Concentration fluc. intensity (%) : 364.4006 82.56651
Skewness : 4.133147 .5250514
Kurtosis : 20.08821 2.051025
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 299
Percentile: 88.22 88.22 91.00 93.33 94.39 97.72 99.17 99.89 99.94
Conc. (ppt): 2 6 20 68 125 228 308 348 393



PERIOD # 6

Time : 21 : 21 : 47 to 21 : 51 : 46 (1800 s)
Maximum Concentration (ppt) : 1931
Peak (99 perc) to mean ratio : 8.041717
Plume intermittency : .4077778
Total Conditional
Mean Concentration (ppt) : 225.8072 553.7507
Concentration fluc. intensity (%) : 183.9498 88.74668
Skewness : 2.22887 1.141925
Kurtosis : 7.443523 3.332997
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 1816
Percentile: 59.22 59.22 61.94 68.94 82.00 91.67 95.78 97.17 98.78
Conc. (ppt): 2 10 44 200 425 906 1323 1539 1790

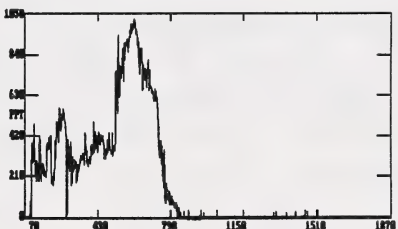


STATIONARY STATISTICS (T32C14)

Scans : 70 to 7740
Date : 12-21-1988 Start Time : 22:20:57
Location: K9 on 700 m C Source : C Ground
Abs. Coordinates: (North 1065.3 m, East 1004.1 m)
Transport from 356.81 deg
Power Law Cal. : ppt = 1037 *(voltage)^ .8106

PERIOD # 1

Time : 22 : 21 : 58 to 22 : 51 : 57 (1800 s)
Maximum Concentration (ppt) : 1023
Peak (99 perc) to mean ratio : 5.481682
Plume intermittency : .4144444
Total Conditional
Mean Concentration (ppt) : 178.8656 431.5791
Concentration fluc. intensity (%) : 151.1336 60.09098
Skewness : 1.462404 .6111023
Kurtosis : 4.12162 2.439457
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 74 980
Percentile: 58.56 58.56 59.67 63.00 68.67 87.56 91.94 95.28 98.39
Conc. (ppt): 2 8 32 128 256 512 723 831 955

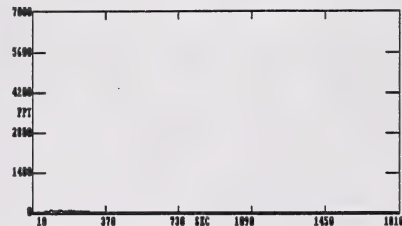


STATIONARY STATISTICS (T32C15)

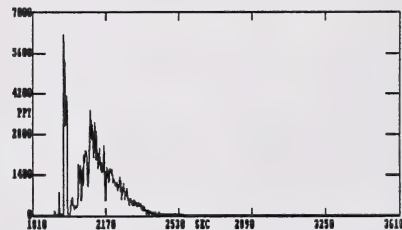
Scans : 10 to 8500
Date : 12-22-1988 Start Time : 00:36:58
Location: G3 on 700 m C Source : C Ground
Abs. Coordinates: (North 1624.5 m, East 1651.1 m)
Transport from 281.51 deg
Power Law Cal. : $ppt = 1037 * (voltage)^{.8106}$

PERIOD # 1

Time : 0 : 36 : 59 to 1 : 6 : 58 (1800 s)
Maximum Concentration (ppt) : 100
Peak (99 perc) to mean ratio : 13.18276
Plume intermittency : .1183333
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 4.992778 42.19249
Skewness : 293.9051 37.48324
Kurtosis : 3.038353 .6743801
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 74 66
Percentile: 88.17 88.17 88.17 89.83 93.94 98.83 99.83 99.83 99.94
Conc. (ppt): 2 4 10 25 40 63 79 87 95

**PERIOD # 2**

Time : 1 : 6 : 59 to 1 : 36 : 58 (1800 s)
Maximum Concentration (ppt) : 6253
Peak (99 perc) to mean ratio : 12.58822
Plume intermittency : .3405555
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 287.8817 845.3295
Skewness : 245.2545 117.8554
Kurtosis : 3.40019 1.746656
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 33 3624
Percentile: 65.94 65.94 76.17 83.50 89.11 97.78 99.50 99.72 99.94
Conc. (ppt): 2 14 79 454 1089 2609 4039 4811 5730

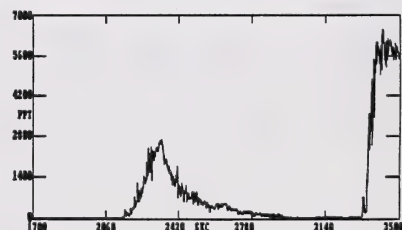


STATIONARY STATISTICS (T32C17)

Scans : 1700 to 11400
Date : 12-22-1988 Start Time : 03:05:29
Location: G3 on 700 m C Source : C Ground
Abs. Coordinates: (North 1624.5 m, East 1651.1 m)
Transport from 281.51 deg
Power Law Cal. : $ppt = 1037 * (voltage)^{.8106}$

PERIOD # 1

Time : 3 : 33 : 40 to 4 : 3 : 39 (1800 s)
Maximum Concentration (ppt) : 6535
Peak (99 perc) to mean ratio : 8.251481
Plume intermittency : .63
Mean Concentration (ppt) : Total Conditional
Concentration fluc. intensity (%) : 756.7167 1201.138
Skewness : 200.7376 147.2624
Kurtosis : 2.575711 1.865705
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 99 6244
Percentile: 37.00 37.50 48.94 71.17 82.00 92.06 92.89 93.33 98.11
Conc. (ppt): 2 14 81 468 1128 2715 4212 5021 5985



PERIOD # 2

Time : 4 : 3 : 40 to 4 : 33 : 39 (1800 s)

Maximum Concentration (ppt) : 6156

Peak (99 perc) to mean ratio : 6.75004

Plume intermittency : .6283333

	Total	Conditional
--	-------	-------------

Mean Concentration (ppt) : 887.5016 1412.469

Concentration fluc. intensity (%) : 198.6516 145.1858

Skewness : 2.014917 1.300822

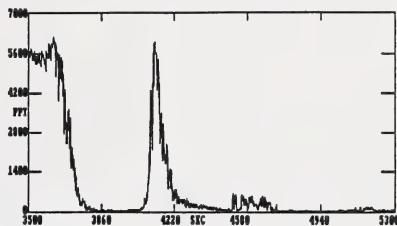
Kurtosis : 5.442168 2.981359

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 75 5991

Percentile: 37.17 37.17 50.67 75.78 81.11 85.67 88.39 89.44 96.89

Conc. (ppt): 2 14 78 449 1075 2573 3980 4738 5642



PERIOD # 3

Time : 4 : 33 : 40 to 5 : 3 : 39 (1800 s)

Maximum Concentration (ppt) : 1200

Peak (99 perc) to mean ratio : 10.113

Plume intermittency : .4327778

	Total	Conditional
--	-------	-------------

Mean Concentration (ppt) : 81.89889 189.2401

Concentration fluc. intensity (%) : 204.7127 111.6437

Skewness : 3.036272 1.926915

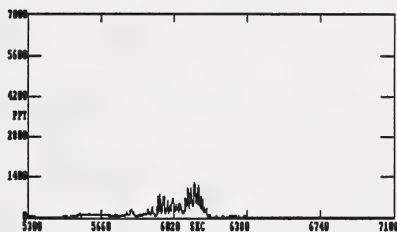
Kurtosis : 13.23514 6.56708

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 828

Percentile: 56.72 56.72 60.72 84.22 90.78 97.06 99.11 99.50 99.94

Conc. (ppt): 2 8 35 143 291 591 842 970 1118



Field Test 33
Stationary Statistics
Kathryn Field Measurement Program

Test Start Time: 16:39 Dec 22 88
Test Stop Time: 07:44 Dec 23 88

Source Type: Ground

Source Location: Center

Analyser A Status: Stationary
Arc: C 700 m
Number of 30 minute Periods: 11

Analyser B Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 9

Analyser C Status: Stationary/Mobile
Arc: C 700 m
Number of 30 minute Periods: 14

STATIONARY STATISTICS (T33A02)

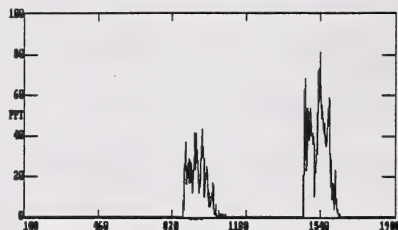
Scans : 100 to 3700
Date : 12-22-1988 Start Time : 16:57:02
Location: A1 on 700 m C Source : C Ground
Abs. Coordinates: (North 2464.2 m, East 965.4 m)
Transport from 180.01 deg
Power Law Cal. : ppt = 2555 *(voltage)^ 2.3195
For volt > .642 : ppt = 1235.2 *(voltage)^ .992

PERIOD # 1

Time : 16 : 58 : 34 to 17 : 28 : 33 (1800 s)
Maximum Concentration (ppt) : 81
Peak (99 perc) to mean ratio : 11.65533
Plume intermittency : .195

	Total	Conditional
Mean Concentration (ppt)	5.237222	26.85755
Concentration fluc. intensity (%)	253.8085	67.16887
Skewness	2.769559	.4662149
Kurtosis	10.17188	2.431306

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 61
Percentile: 81.44 82.33 84.56 88.94 93.00 97.89 99.50 99.78 99.94
Conc. (ppt): 2 4 9 22 34 52 65 71 78



STATIONARY STATISTICS (T33A03)

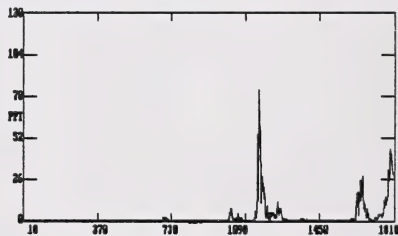
Scans : 10 to 6227
Date : 12-22-1988 Start Time : 18:07:24
Location: A1 on 700 m C Source : C Ground
Abs. Coordinates: (North 2464.2 m, East 965.4 m)
Transport from 180.01 deg
Power Law Cal. : ppt = 2555 *(voltage)^ 2.3195
For volt > .642 : ppt = 1235.2 *(voltage)^ .992

PERIOD # 1

Time : 18 : 7 : 26 to 18 : 37 : 25 (1800 s)
Maximum Concentration (ppt) : 82
Peak (99 perc) to mean ratio : 18.80134
Plume intermittency : .235

	Total	Conditional
Mean Concentration (ppt)	2.163889	9.208037
Concentration fluc. intensity (%)	339.5582	139.4469
Skewness	5.299377	2.43022
Kurtosis	36.77389	9.547348

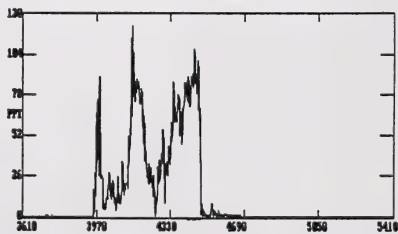
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 41
Percentile: 82.39 88.11 93.11 97.00 98.72 99.50 99.89 99.94 99.94
Conc. (ppt): 2 4 9 22 34 53 66 72 78

**PERIOD # 3**

Time : 19 : 7 : 26 to 19 : 37 : 25 (1800 s)
Maximum Concentration (ppt) : 123
Peak (99 perc) to mean ratio : 7.117059
Plume intermittency : .3955556

	Total	Conditional
Mean Concentration (ppt)	13.41222	33.9073
Concentration fluc. intensity (%)	192.7936	93.04894
Skewness	1.957258	.6184475
Kurtosis	5.568722	1.985197

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 95
Percentile: 66.94 70.61 74.67 83.00 86.94 93.78 99.33 99.78 99.94
Conc. (ppt): 2 4 11 29 47 76 97 106 117



STATIONARY STATISTICS (T33A05)

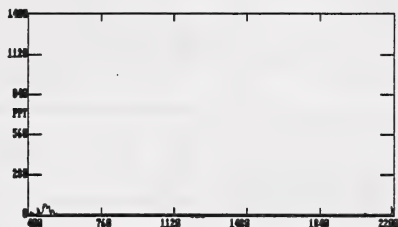
Scans : 400 to 14050
Date : 12-22-1988 Start Time : 20:09:03
Location: Al on 700 m C Source : C Ground
Abs. Coordinates: (North 2464.2 m, East 965.4 m)
Transport from 180.01 deg
Power Law Cal. : ppt = 2555 *(voltage)^ 2.3195
For volt > .642 : ppt = 1235.2 *(voltage)^ .992

PERIOD # 1

Time : 20 : 15 : 35 to 20 : 45 : 34 (1800 s)
Maximum Concentration (ppt) : 74
Peak (99 perc) to mean ratio : 29.16127
Plume intermittency : .1122222

	Total	Conditional
Mean Concentration (ppt)	1.947222	17.35148
Concentration fluc. intensity (%)	455.8929	120.1928
Skewness	5.697269	1.303343
Kurtosis	36.79343	3.342341

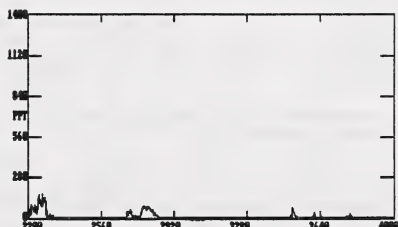
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 57
Percentile: 91.11 92.56 94.72 96.89 97.72 98.33 99.22 99.56 99.83
Conc. (ppt): 2 4 9 20 31 48 60 65 71

**PERIOD # 2**

Time : 20 : 45 : 35 to 21 : 15 : 34 (1800 s)
Maximum Concentration (ppt) : 164
Peak (99 perc) to mean ratio : 15.44109
Plume intermittency : .2777778

	Total	Conditional
Mean Concentration (ppt)	7.998889	28.796
Concentration fluc. intensity (%)	284.571	123.5816
Skewness	3.708719	1.570921
Kurtosis	17.83387	4.902852

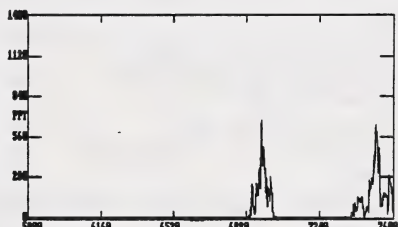
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 124
Percentile: 76.39 81.39 86.44 91.44 94.67 98.22 99.11 99.56 99.89
Conc. (ppt): 2 5 13 36 59 98 127 141 156

**PERIOD # 4**

Time : 21 : 45 : 35 to 22 : 15 : 34 (1800 s)
Maximum Concentration (ppt) : 673
Peak (99 perc) to mean ratio : 14.08945
Plume intermittency : .1944444

	Total	Conditional
Mean Concentration (ppt)	32.99445	169.6857
Concentration fluc. intensity (%)	283.4198	86.96861
Skewness	3.544186	1.110601
Kurtosis	16.67009	3.813655

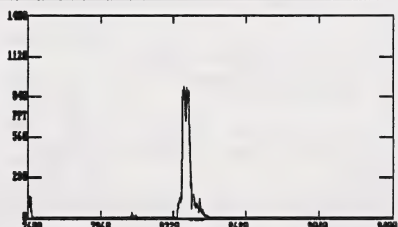
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 465
Percentile: 81.28 82.33 83.28 87.89 92.89 97.50 99.28 99.50 99.78
Conc. (ppt): 2 7 26 95 183 351 486 554 631

**PERIOD # 5**

Time : 22 : 15 : 35 to 22 : 45 : 34 (1800 s)
Maximum Concentration (ppt) : 906
Peak (99 perc) to mean ratio : 34.5137
Plume intermittency : .1461111

	Total	Conditional
Mean Concentration (ppt)	23.22167	158.9316
Concentration fluc. intensity (%)	494.4733	164.8813
Skewness	6.237434	1.903223
Kurtosis	42.55742	5.114421

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 801
Percentile: 87.78 89.83 92.11 96.06 97.50 97.94 98.22 98.61 99.28
Conc. (ppt): 2 8 30 117 232 459 645 739 846

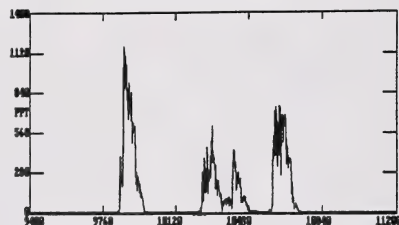


PERIOD # 6

Time : 22 : 45 : 35 to 23 : 15 : 34 (1800 s)
 Maximum Concentration (ppt) : 1163
 Peak (99 perc) to mean ratio : 10.36398
 Plume intermittency : .365

	Total	Conditional
Mean Concentration (ppt)	82.83	226.9315
Concentration fluc. intensity (%)	226.3517	111.1342
Skewness	2.727735	1.231245
Kurtosis	10.3297	3.744295

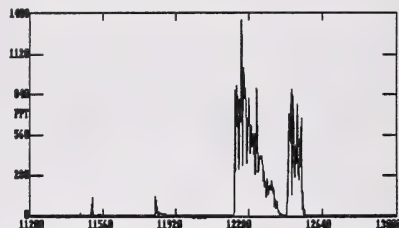
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 858
 Percentile: 67.67 71.28 74.06 82.06 88.83 95.17 98.72 99.56 99.89
 Conc. (ppt): 2 8 34 140 283 574 817 941 1084

**PERIOD # 7**

Time : 23 : 15 : 35 to 23 : 45 : 34 (1800 s)
 Maximum Concentration (ppt) : 1353
 Peak (99 perc) to mean ratio : 11.98259
 Plume intermittency : .2561111

	Total	Conditional
Mean Concentration (ppt)	75.40111	294.4078
Concentration fluc. intensity (%)	262.4955	101.0354
Skewness	2.946044	.8282815
Kurtosis	11.60394	2.884118

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 904
 Percentile: 76.78 79.56 83.00 85.50 89.33 96.61 99.39 99.78 99.83
 Conc. (ppt): 2 9 37 156 320 658 943 1090 1259

**STATIONARY STATISTICS (T33A09)**

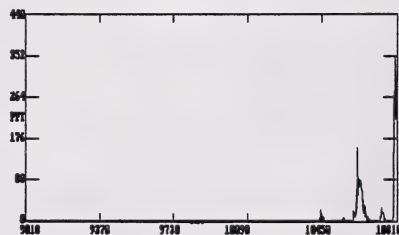
Scans : 10 to 14460
 Date : 12-23-1988 Start Time : 03:54:58
 Location: Al on 700 m C Source : C Ground
 Abs. Coordinates: (North 2464.2 m, East 965.4 m)
 Transport from 180.01 deg
 Power Law Cal. : ppt = 2555 *(voltage)^ 2.3195
 For volt > .642 : ppt = 1235.2 *(voltage)^ .992

PERIOD # 6

Time : 6 : 25 : 0 to 6 : 54 : 59 (1800 s)
 Maximum Concentration (ppt) : 348
 Peak (99 perc) to mean ratio : 26.5654
 Plume intermittency : 9.333333E-02

	Total	Conditional
Mean Concentration (ppt)	3.838889	41.13095
Concentration fluc. intensity (%)	634.637	168.8924
Skewness	9.273746	2.522657
Kurtosis	99.33375	8.872324

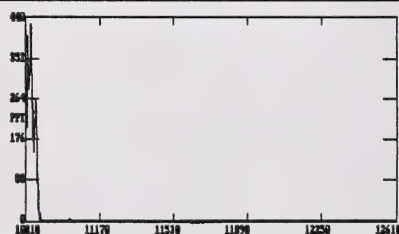
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 102
 Percentile: 92.00 94.00 96.50 97.83 99.17 99.28 99.72 99.89 99.94
 Conc. (ppt): 2 6 19 60 108 194 260 292 328

**PERIOD # 7**

Time : 6 : 55 : 0 to 7 : 24 : 59 (1800 s)
 Maximum Concentration (ppt) : 427
 Peak (99 perc) to mean ratio : 35.88368
 Plume intermittency : 4.388889E-02

	Total	Conditional
Mean Concentration (ppt)	8.25	187.9747
Concentration fluc. intensity (%)	569.7924	68.46898
Skewness	6.129644	-1.025164
Kurtosis	41.38042	1.847801

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 296
 Percentile: 95.72 96.33 96.56 96.83 97.06 98.28 99.22 99.61 99.78
 Conc. (ppt): 2 6 21 69 127 233 315 356 402

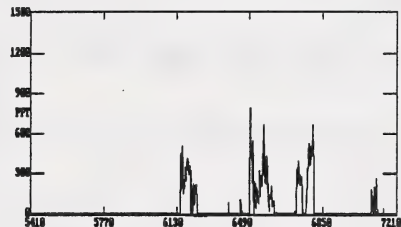


STATIONARY STATISTICS (T33B10)

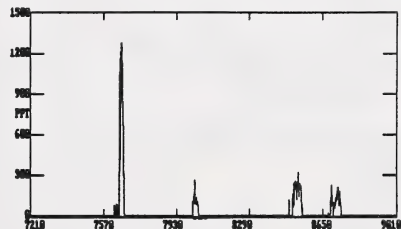
Scans : 10 to 14100
Date : 12-22-1988 Start Time : 19:46:20
Location: U9 on 700 m C Source : C Ground
Abs. Coordinates: (North 2424.1 m, East 731.7 m)
Transport from 160.52 deg
Power Law Cal. : $ppt = 497.45 * (\text{voltage})^{1.0582}$

PERIOD # 4

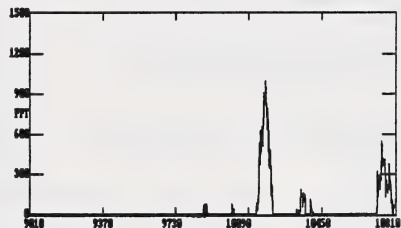
Time : 21 : 16 : 22 to 21 : 46 : 21 (1800 s)
Maximum Concentration (ppt) : 788
Peak (99 perc) to mean ratio : 12.47498
Plume intermittency : .1705556
Total Conditional
Mean Concentration (ppt) : 42.04611 246.5244
Concentration fluc. intensity (%) : 266.3844 61.71136
Skewness : 2.933697 .5063683
Kurtosis : 11.38209 2.752884
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 525
Percentile: 82.94 82.94 83.78 86.83 90.50 97.17 99.61 99.78 99.94
Conc. (ppt): 2 7 28 107 208 404 565 645 737

**PERIOD # 5**

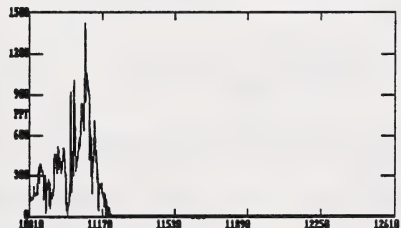
Time : 21 : 46 : 22 to 22 : 16 : 21 (1800 s)
Maximum Concentration (ppt) : 1272
Peak (99 perc) to mean ratio : 27.36943
Plume intermittency : .09
Total Conditional
Mean Concentration (ppt) : 21.08 234.2222
Concentration fluc. intensity (%) : 505.5761 117.918
Skewness : 8.049237 2.368528
Kurtosis : 76.60609 7.631599
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 577
Percentile: 91.00 91.00 91.56 95.67 98.67 99.06 99.39 99.50 99.89
Conc. (ppt): 2 9 36 149 305 622 890 1026 1184

**PERIOD # 6**

Time : 22 : 16 : 22 to 22 : 46 : 21 (1800 s)
Maximum Concentration (ppt) : 997
Peak (99 perc) to mean ratio : 20.89169
Plume intermittency : .1361111
Total Conditional
Mean Concentration (ppt) : 35.60944 261.6204
Concentration fluc. intensity (%) : 358.9352 94.32343
Skewness : 4.499633 1.096744
Kurtosis : 24.53568 3.216103
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 744
Percentile: 86.39 86.39 88.39 91.67 95.06 97.56 98.78 99.39 99.89
Conc. (ppt): 2 8 32 126 251 500 706 810 930

**PERIOD # 7**

Time : 22 : 46 : 22 to 23 : 16 : 21 (1800 s)
Maximum Concentration (ppt) : 1423
Peak (99 perc) to mean ratio : 11.67729
Plume intermittency : .2205556
Total Conditional
Mean Concentration (ppt) : 80.57777 365.3401
Concentration fluc. intensity (%) : 242.1438 71.67655
Skewness : 2.994511 1.171165
Kurtosis : 12.71808 4.153372
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 941
Percentile: 77.94 77.94 78.56 83.44 89.28 97.28 99.33 99.78 99.94
Conc. (ppt): 2 9 38 161 333 688 990 1144 1323



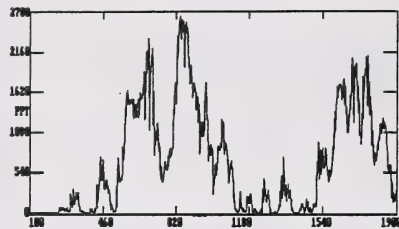
STATIONARY STATISTICS (T33B15)

Scans : 100 to 9875
Date : 12-23-1988 Start Time : 04:59:37
Location: U9 on 700 m C Source : C Ground
Abs. Coordinates: (North 2424.1 m, East 731.7 m)
Transport from 160.52 deg
Power Law Cal. : ppt = 497.45 *(voltage)^ 1.0582

PERIOD # 1

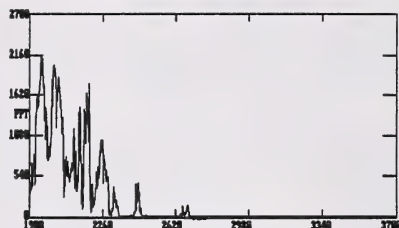
Time : 5 : 1 : 9 to 5 : 31 : 8 (1800 s)
Maximum Concentration (ppt) : 2641
Peak (99 perc) to mean ratio : 3.632988
Plume intermittency : .8577778

	Total	Conditional
Mean Concentration (ppt)	691.5428	806.2027
Concentration fluc. intensity (%)	100.3129	84.90773
Skewness	.7993599	.6336346
Kurtosis	2.579021	2.404772
Percentile: 50 99 (Interpolated)		
Conc. (ppt) : 500 2512		
Percentile: 14.22 15.06 25.78 40.33 51.78 74.61 92.28 95.89 98.44		
Conc. (ppt): 2 11 51 248 546 1201 1781 2085 2441		

**PERIOD # 2**

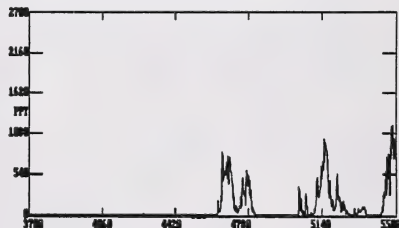
Time : 5 : 31 : 9 to 6 : 1 : 8 (1800 s)
Maximum Concentration (ppt) : 2144
Peak (99 perc) to mean ratio : 8.970975
Plume intermittency : .2961111

	Total	Conditional
Mean Concentration (ppt)	217.4117	734.2233
Concentration fluc. intensity (%)	214.4807	81.13446
Skewness	2.330832	.6354301
Kurtosis	7.565648	2.263143
Percentile: 50 99 (Interpolated)		
Conc. (ppt) : 0 1950		
Percentile: 70.39 70.44 73.22 77.78 82.39 91.17 95.22 97.06 99.28		
Conc. (ppt): 2 10 46 215 462 996 1461 1703 1986		

**PERIOD # 3**

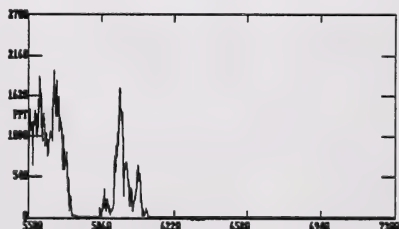
Time : 6 : 1 : 9 to 6 : 31 : 8 (1800 s)
Maximum Concentration (ppt) : 1182
Peak (99 perc) to mean ratio : 10.36592
Plume intermittency : .2966667

	Total	Conditional
Mean Concentration (ppt)	90.00889	303.4008
Concentration fluc. intensity (%)	227.7878	91.43247
Skewness	2.718115	1.017165
Kurtosis	10.15387	3.156486
Percentile: 50 99 (Interpolated)		
Conc. (ppt) : 0 933		
Percentile: 70.33 70.44 72.72 82.89 88.28 94.83 98.00 99.22 99.67		
Conc. (ppt): 2 8 34 142 287 583 830 956 1101		

**PERIOD # 4**

Time : 6 : 31 : 9 to 7 : 1 : 8 (1800 s)
Maximum Concentration (ppt) : 1951
Peak (99 perc) to mean ratio : 8.927212
Plume intermittency : .2661111

	Total	Conditional
Mean Concentration (ppt)	186.6478	701.3904
Concentration fluc. intensity (%)	223.9907	77.53965
Skewness	2.245777	.257856
Kurtosis	6.795547	1.726516
Percentile: 50 99 (Interpolated)		
Conc. (ppt) : 0 1666		
Percentile: 73.39 73.72 76.11 81.22 84.33 89.28 95.94 98.39 99.78		
Conc. (ppt): 2 10 44 201 429 915 1336 1554 1809		



PERIOD # 5

Time : 7 : 1 : 9 to 7 : 31 : 8 (1800 s)

Maximum Concentration (ppt) : 1334

Peak (99 perc) to mean ratio : 7.879377

Plume intermittency : .2405556

	<u>Total</u>	<u>Conditional</u>
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Mean Concentration (ppt)	: 161.4661	671.2217
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Concentration fluc. intensity (%)	: 206.0876	51.20997
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Skewness	: 1.944584	-.0491869
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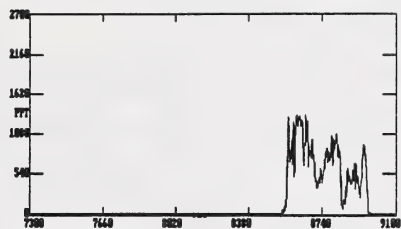
Kurtosis	: 5.519793	2.259198
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Percentile: 50 99 (Interpolated)

Conc. (ppt) : 0 1272

Percentile: 75.94 76.06 76.78 78.44 79.61 87.00 94.72 96.72 98.50

Conc. (ppt): 2 9 37 154 316 650 931 1075 1241



STATIONARY STATISTICS (T33C09)

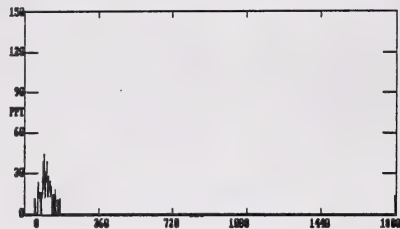
Scans : 1 to 4645
Date : 12-22-1988 Start Time : 18:15:27
Location: C5 on 700 m C Source : C Ground
Abs. Coordinates: (North 2305.9 m, East 1408.6 m)
Transport from 219.3 deg
Power Law Cal. : ppt = 968.8 *(voltage)^ .8682

PERIOD # 1

Time : 18 : 15 : 19 to 18 : 45 : 18 (1800 s)
Maximum Concentration (ppt) : 44
Peak (99 perc) to mean ratio : 32.94909
Plume intermittency : 3.944444E-02

	Total	Conditional
Mean Concentration (ppt)	.7933334	20.11268
Concentration fluc. intensity (%)	532.3475	39.65799
Skewness	5.979496	1.049941
Kurtosis	41.75409	3.40601

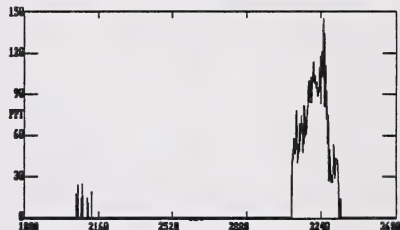
Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 26
Percentile: 96.06 96.06 96.06 97.17 98.39 99.44 99.67 99.94 99.94
Conc. (ppt): 1 3 7 14 21 30 36 39 42

**PERIOD # 2**

Time : 18 : 45 : 19 to 19 : 15 : 18 (1800 s)
Maximum Concentration (ppt) : 145
Peak (99 perc) to mean ratio : 12.16093
Plume intermittency : .1344444

	Total	Conditional
Mean Concentration (ppt)	9.065556	67.42975
Concentration fluc. intensity (%)	282.0506	45.16459
Skewness	2.900708	.1511088
Kurtosis	10.54788	2.250497

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 110
Percentile: 86.56 86.56 86.56 88.50 91.61 95.94 99.39 99.61 99.83
Conc. (ppt): 2 4 12 33 54 88 113 125 138



STATIONARY STATISTICS (T33C11)

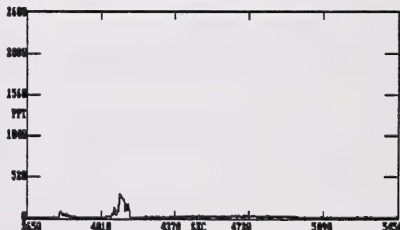
Scans : 50 to 13700
Date : 12-22-1988 Start Time : 19:45:14
Location: B2 on 700 m C Source : C Ground
Abs. Coordinates: (North 2429.9 m, East 1181.8 m)
Transport from 198.02 deg
Power Law Cal. : ppt = 968.8 *(voltage)^ .8682

PERIOD # 3

Time : 20 : 45 : 55 to 21 : 15 : 54 (1800 s)
Maximum Concentration (ppt) : 302
Peak (99 perc) to mean ratio : 21.68855
Plume intermittency : .2477778

	Total	Conditional
Mean Concentration (ppt)	11.18944	45.15919
Concentration fluc. intensity (%)	326.6416	137.5295
Skewness	5.323193	2.591964
Kurtosis	33.91827	8.860353

Percentile: 50 99 (Interpolated)
Conc. (ppt) : 0 243
Percentile: 75.22 75.22 85.50 95.44 96.94 98.28 98.78 99.17 99.89
Conc. (ppt): 2 6 17 54 96 171 227 254 285

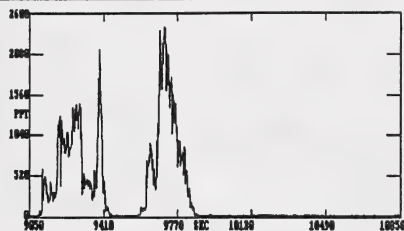


PERIOD # 6

Time : 22 : 15 : 55 to 22 : 45 : 54 (1800 s)
 Maximum Concentration (ppt) : 2441
 Peak (99 perc) to mean ratio : 8.240707
 Plume intermittency : .3594444

	Total	Conditional
Mean Concentration (ppt)	262.6783	730.7898
Concentration fluc. intensity (%)	190.7359	81.67683
Skewness	2.155205	.8627499
Kurtosis	7.099876	2.963407

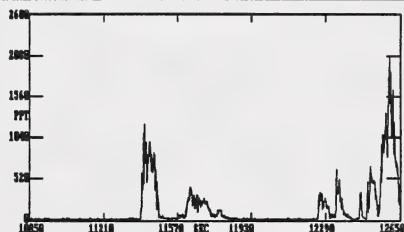
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 2165
 Percentile: 64.06 64.06 67.22 72.00 81.67 91.11 96.72 97.89 99.44
 Conc. (ppt): 2 10 49 235 513 1119 1653 1932 2258

**PERIOD # 7**

Time : 22 : 45 : 55 to 23 : 15 : 54 (1800 s)
 Maximum Concentration (ppt) : 2063
 Peak (99 perc) to mean ratio : 11.17014
 Plume intermittency : .4466667

	Total	Conditional
Mean Concentration (ppt)	133.0317	297.8321
Concentration fluc. intensity (%)	218.114	125.3645
Skewness	3.156593	1.962638
Kurtosis	14.24503	6.939867

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 1486
 Percentile: 55.33 55.56 68.22 80.11 89.67 96.83 98.78 99.44 99.94
 Conc. (ppt): 2 10 45 209 448 962 1409 1641 1911

**STATIONARY STATISTICS (T33C13)**

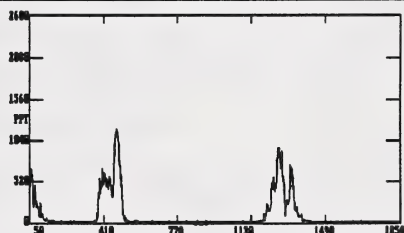
Scans : 50 to 16600
 Date : 12-22-1988 Start Time : 23:38:57
 Location: B2 on 700 m C Source : C Ground
 Abs. Coordinates: (North 2429.9 m, East 1181.8 m)
 Transport from 198.02 deg
 Power Law Cal. : ppt = 968.8 *(voltage)^ .8682

PERIOD # 1

Time : 23 : 39 : 38 to 0 : 9 : 37 (1800 s)
 Maximum Concentration (ppt) : 1189
 Peak (99 perc) to mean ratio : 11.00023
 Plume intermittency : .26

	Total	Conditional
Mean Concentration (ppt)	89.30222	343.4701
Concentration fluc. intensity (%)	238.8261	86.1966
Skewness	2.752532	.827798
Kurtosis	10.43486	2.977624

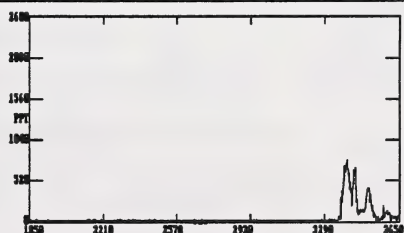
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 982
 Percentile: 74.00 74.00 78.06 82.78 87.50 95.17 97.94 98.94 99.33
 Conc. (ppt): 2 8 34 142 288 586 834 961 1108

**PERIOD # 2**

Time : 0 : 9 : 38 to 0 : 39 : 37 (1800 s)
 Maximum Concentration (ppt) : 778
 Peak (99 perc) to mean ratio : 18.76054
 Plume intermittency : .1566667

	Total	Conditional
Mean Concentration (ppt)	34.60778	220.9007
Concentration fluc. intensity (%)	333.9808	95.0882
Skewness	4.075994	1.000584
Kurtosis	19.96808	2.79361

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 649
 Percentile: 84.33 84.33 86.17 91.22 94.00 96.61 98.17 98.89 99.72
 Conc. (ppt): 2 7 28 106 205 400 558 637 728

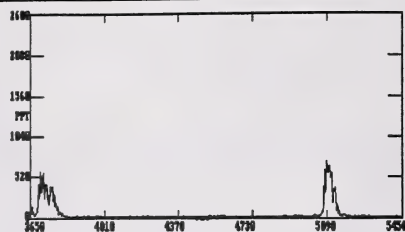


PERIOD # 3

Time : 0 : 39 : 38 to 1 : 9 : 37 (1800 s)
 Maximum Concentration (ppt) : 709
 Peak (99 perc) to mean ratio : 16.28747
 Plume intermittency : .1738889

	Total	Conditional
Mean Concentration (ppt)	36.37667	209.1949
Concentration fluc. intensity (%)	313.0264	93.68822
Skewness	3.618869	.7808072
Kurtosis	15.92812	2.407629

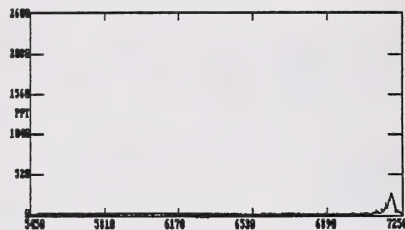
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 592
 Percentile: 82.61 82.61 85.72 90.44 92.28 96.50 97.83 98.89 99.78
 Conc. (ppt): 2 7 27 99 191 368 511 582 664

**PERIOD # 4**

Time : 1 : 9 : 38 to 1 : 39 : 37 (1800 s)
 Maximum Concentration (ppt) : 263
 Peak (99 perc) to mean ratio : 22.63123
 Plume intermittency : .2222222

	Total	Conditional
Mean Concentration (ppt)	8.137222	36.6175
Concentration fluc. intensity (%)	356.0204	142.7901
Skewness	6.069013	2.862878
Kurtosis	43.97017	10.53985

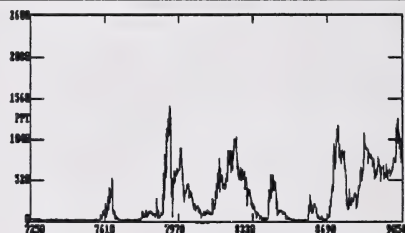
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 0 184
 Percentile: 77.78 77.78 89.78 96.67 97.67 98.50 99.22 99.33 99.61
 Conc. (ppt): 2 5 16 49 86 151 199 223 249

**PERIOD # 5**

Time : 1 : 39 : 38 to 2 : 9 : 37 (1800 s)
 Maximum Concentration (ppt) : 1458
 Peak (99 perc) to mean ratio : 4.370458
 Plume intermittency : .7133333

	Total	Conditional
Mean Concentration (ppt)	273.72	383.7196
Concentration fluc. intensity (%)	119.413	85.46982
Skewness	1.103028	.7203848
Kurtosis	3.205573	2.584332

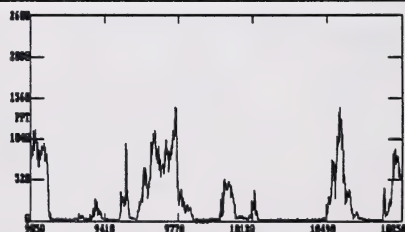
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 126 1196
 Percentile: 28.67 28.67 36.83 55.67 66.50 86.83 96.67 98.89 99.72
 Conc. (ppt): 2 9 38 164 340 704 1013 1172 1356

**PERIOD # 6**

Time : 2 : 9 : 38 to 2 : 39 : 37 (1800 s)
 Maximum Concentration (ppt) : 1448
 Peak (99 perc) to mean ratio : 5.443538
 Plume intermittency : .605

	Total	Conditional
Mean Concentration (ppt)	218.295	360.8182
Concentration fluc. intensity (%)	151.7364	99.89732
Skewness	1.528606	.8576869
Kurtosis	4.16925	2.507408

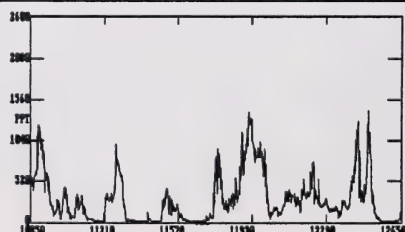
Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 32 1188
 Percentile: 39.50 39.50 52.83 65.67 75.83 86.33 96.39 98.89 99.72
 Conc. (ppt): 2 9 38 163 338 699 1006 1164 1346

**PERIOD # 7**

Time : 2 : 39 : 38 to 3 : 9 : 37 (1800 s)
 Maximum Concentration (ppt) : 1414
 Peak (99 perc) to mean ratio : 4.443901
 Plume intermittency : .795

	Total	Conditional
Mean Concentration (ppt)	282.2222	354.9965
Concentration fluc. intensity (%)	110.1207	87.12419
Skewness	1.389271	1.250005
Kurtosis	4.290263	3.811296

Percentile: 50 99 (Interpolated)
 Conc. (ppt) : 197 1254
 Percentile: 20.50 20.50 27.00 44.44 70.39 86.89 95.28 97.72 99.67
 Conc. (ppt): 2 9 38 160 331 685 984 1137 1315



PERIOD # 8

Time : 3 : 9 : 38 to 3 : 39 : 37 (1800 s)

Maximum Concentration (ppt) : 2108

Peak (99 perc) to mean ratio : 3.434735

Plume intermittency : .8516667

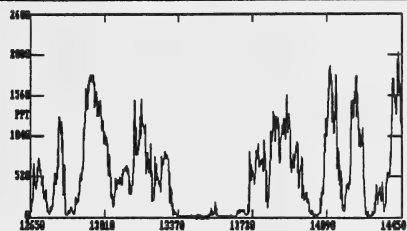
	Total	Conditional
Mean Concentration (ppt)	549.6833	645.4207
Concentration fluc. intensity (%)	94.4528	78.19635
Skewness	.7758018	.6407931
Kurtosis	2.572932	2.434854

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 445 1888

Percentile: 14.83 14.83 22.22 35.72 50.67 77.61 92.00 96.44 99.78

Conc. (ppt): 2 10 46 212 456 981 1438 1676 1953

**PERIOD # 9**

Time : 3 : 39 : 38 to 4 : 9 : 37 (1800 s)

Maximum Concentration (ppt) : 2570

Peak (99 perc) to mean ratio : 2.864619

Plume intermittency : .9116667

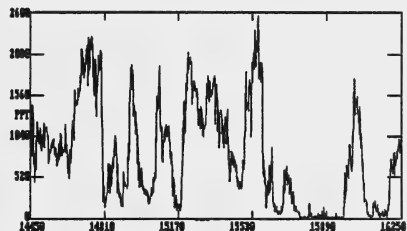
	Total	Conditional
Mean Concentration (ppt)	800.9161	878.5186
Concentration fluc. intensity (%)	80.21032	70.58366
Skewness	.4814939	.4186581
Kurtosis	2.160153	2.156137

Percentile: 50 99 (Interpolated)

Conc. (ppt) : 708 2294

Percentile: 8.83 8.83 14.61 26.61 41.72 72.22 89.61 96.67 99.72

Conc. (ppt): 2 11 51 244 534 1172 1736 2031 2376



Appendix C1

Summary of Fan Calibration Data

Table C1
Summary of Fan Calibration Data

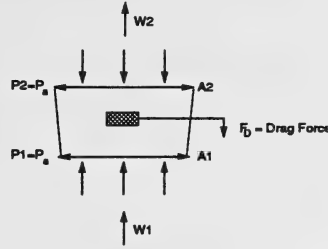
Date	# of Screens	Run #	Pressure RMS (inches H ₂ O)	Pressure AVG	Exit Velocity (m/s)	Momentum Velocity (m/s)	Magnahelic Reading (Pascal)
Oct 5, 1988	Two	1	0.92	0.87	20.91	20.24	N/A
Oct 5, 1988	One	2	0.98	0.94	21.68	21.14	N/A
Oct 5, 1988	None	3	1.42	1.30	26.10	24.95	N/A
Oct 5, 1988	None	4	1.65	1.51	28.18	26.95	N/A
Oct 7, 1988	Two	1	0.66	0.63	17.79	17.38	183.0
Oct 7, 1988	One	2	0.98	0.92	21.62	21.00	215.0
Oct 7, 1988	None	3	1.35	1.26	25.39	24.47	371.0
Oct 7, 1988	None	4	1.55	1.41	27.23	26.01	265.0
Oct 10, 1988	Two	1	0.78	0.75	19.26	18.84	195.6
Oct 10, 1988	Two	2	0.81	0.76	19.62	18.96	185.6
Oct 10, 1988	One	3	1.04	0.98	22.23	21.62	200.6
Oct 10, 1988	One	4	0.99	0.94	21.69	21.20	201.3
Oct 10, 1988	None	5	1.32	1.22	25.04	24.09	258.0
Oct 10, 1988	None	6	1.61	1.50	27.70	26.74	253.0
Oct 11, 1988	None	1	1.46	1.36	26.05	25.12	N/A
Oct 11, 1988	None	2	1.62	1.51	27.51	26.63	N/A
Oct 11, 1988	None	3	1.52	1.36	26.66	25.25	N/A
Oct 11, 1988	Two	4	0.85	0.80	20.00	19.37	260.0
Oct 11, 1988	Two	5	0.83	0.77	19.70	19.01	270.0
Oct 11, 1988	Two	6	0.99	0.92	21.54	20.82	270.0
Oct 11, 1988	None	7	1.40	1.31	25.74	24.88	375.0
Oct 11, 1988	None	8	1.69	1.57	28.27	27.26	370.0
Oct 11, 1988	None	9	1.49	1.34	26.53	25.19	370.0

Appendix C2

Reduction in Jet Momentum by Obstacle Drag

Reduction in Jet Momentum by Obstacle Drag

For an obstacle in the air jet from a fan, assume that entrainment at the edges of the jet is unchanged by the obstacle.



Assume that the pressure $P_2 = P_1$ are equal to local atmospheric pressure P_a , so that the effects of the obstacle drag is only to cause the jet to slow down, and to expand in area from A_1 to A_2 .

Also assume incompressible flow, so that $\rho_2 = \rho_1 = \rho$.

Mass Conservation

$$\rho_1 A_1 W_1 = \rho_2 A_2 W_2 \quad (C1)$$

Momentum Conservation

$$\rho_1 A_1 W_1^2 - \rho_2 A_2 W_2^2 = F_D \quad (C2)$$

Using (1) in (2), we can write

$$\rho_1 A_1 W_1^2 - (\rho_1 A_1 W_1) W_2 = F_D \quad (C3)$$

Then, we can express the drag of the obstacle in terms of a drag coefficient C_D based upon the average velocity, $(W_1 + W_2)/2$

$$F_D = C_D A_o \frac{\rho_1 W_1^2}{2} \quad (C4)$$

where: $A_o = \text{projected frontal area of obstacle.}$

Using (4) in (3), with $\rho_1 = \rho_2 = \rho$

$$\rho_1 A_1 W_1^2 - \rho A_1 W_1 W_2 = \frac{C_D}{2} A_o \rho \frac{W_1^2}{2} \quad (C5)$$

Dividing by $\rho A_1 W_1^2$

$$1 - \frac{W_2}{W_1} = \frac{C_D A_o}{4 A_1} \quad (C6)$$

$$\frac{W_2}{W_1} = 1 - \frac{C_D A_o}{4 A_1} \quad (C7)$$

This is valid only for small disturbances that don't change stream area too much, so $\frac{C_D A_o}{4 A_1} \ll 1$ is required.

To estimate the change in jet diameter, use (1) to write

$$\frac{A_1}{A_2} = \frac{W_2}{W_1}$$

therefore

$$\frac{D_1}{D_2} = \left(\frac{W_2}{W_1} \right)^{0.5} \quad (C8)$$

For the change in momentum flux "J"

$$J = \rho A W^2 = \dot{m} W \quad (C9)$$

therefore

$$\frac{J_2}{J_1} = \frac{\dot{m}_2 W_2}{\dot{m}_1 W_1} \quad (C10)$$

But $\dot{m}_2 = \dot{m}_1$, no loss of mass, so

$$\frac{J_2}{J_1} = \frac{W_2}{W_1} = 1 - \frac{C_D A_o}{4 A_1} \quad (C11)$$

Typical values

Fan diameter	$D_f = 0.745 \text{ m}$
Smoke pot	$D_o = 0.231 \text{ m}$
Drag coefficient	$C_D \cong 1.2$

$$\frac{C_D A_o}{4 A_1} = \frac{1.2}{4} \left(\frac{0.213}{0.745} \right)^2 = 0.0245$$

therefore,

$$\begin{aligned} \frac{J_2}{J_1} = \frac{W_2}{W_1} &= 1 - 0.0245 \\ &= 0.975 \end{aligned}$$

and

$$\frac{D_1}{D_2} = (0.975)^{0.5} = 0.988$$

So there is only a 2.5% loss of momentum and a 1.1% change in jet diameter.

Appendix C3

Slide Analysis for Plume Rise Estimations From Smoke Tests

Slide Analysis for Plume Rise Estimations From Smoke Tests

Theory and Calculations

Photo Analysis

Successful determination of the plume rise requires that the film plane be perpendicular. Calculation of a conversion factor is possible if the size of an object in a plane parallel to the film plane is known and the perpendicular distance between the camera and the parallel plane is known. The actual dimension, in any arbitrary parallel plane at a known distance from the camera is given by the equation:

$$\Delta = \frac{M}{S} \frac{\delta}{S'} \Delta'$$

Where: M = perpendicular distance from camera to arbitrary plane.
 δ = size of the known object.
 S = perpendicular distance from camera to plane of known object.
 S' = size of the known object on the slide projection.
 Δ' = size of the unknown object on the slide projection.

This method differs from Halitsky's in that the focal length of the camera and slide projector is not needed. Combining terms to create a variable which operates like Halitsky's K results in

$$K = \frac{\delta}{S'} \frac{M}{S} = \frac{M f_p}{M' f_c} \quad \text{and} \quad \Delta = K \Delta'$$

This simplifies to $\frac{\delta}{S'S} = \frac{f_p}{M' f_c}$

and allows for substitution of the right with the left in Halitsky's analysis.

The plane of interest is always the source plane which is a distance M from the camera film plane. The actual distance D between the camera and the source is known for most tests. These positions were surveyed and were known (to a high degree of accuracy) (actual accuracy).

The angle α between the perpendicular to the film plane and the line connecting the camera to the source can be used to calculate M . When the reference marker is in the center of the slide, Halitsky's method for calculating α can be used. If the marker is closer to being in line with the source than with the center of the slide, a different calculation is required. The marker distance S is always given as an absolute value. The conversion factor must be altered so that the perpendicular distance from the camera to the plane including the marker is used. This distance is $S \cos \alpha$. Using $S \cos \alpha$ instead of S , the new calculation at α becomes

$$\sin \alpha = \frac{W'}{SS'} \left(\frac{1}{2} - \frac{a'}{W'} \right)$$

Halitsky's method, as described in a September 1960 paper, is valid for tests where the wind blew from left to right "across the slide" (the source is on the left side of the photo). For the cases where the source is on the right side of the photo, a different equation is required for correct calculation of β . β is the horizontal angle between the film plane and the mean wind plane.

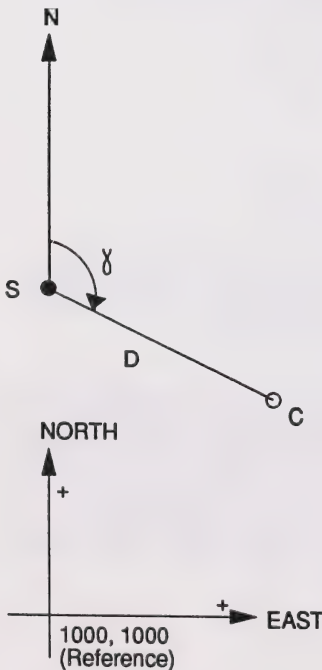
β is dependent on the wind direction measured clockwise from the north, the orientation of the source-camera line and angle α . For left sources, the difference between γ and ϵ is subtracted from $90+\alpha$ to get β .

A simple explanation of this is that if the diagram were flipped over and illuminated from behind, the left source would appear as a right source. The trigonometry would hold, but γ and ϵ would be measured counter-clockwise from the North rather than clockwise.

$$\begin{aligned}\epsilon_c &= 360 - \epsilon_{cc} & \beta_R &= 90 + \alpha + (\gamma_c - \epsilon_c) \\ \gamma_c &= 360 - \gamma_{cc} & \beta_L &= 90 + \alpha + (\gamma_{cc} - \epsilon_{cc}) \\ \gamma_c - \epsilon_c &= -(\gamma_{cc} - \epsilon_{cc}) & &= 90 + \alpha - (\gamma_c - \epsilon_c) \\ \gamma_{cc} - \epsilon_{cc} &= -(\gamma_c - \epsilon_c) & &\end{aligned}$$

With these considerations taken into account, the analysis of Halitsky can continue from equation 4 to the end.

Relative Positions of Camera and Source



The positions of the source and camera were known from survey. Distance between them (D) was calculated from Northings and Eastings at each location.

The orientation from north (positive clockwise) of the line from the source to the camera was also calculated (γ).

Input Source position N_s, E_s
 Camera position N_c, E_c

$$D = \sqrt{(N_c - N_s)^2 + (E_c - E_s)^2}$$

$$\gamma = \text{atan2}\{(N_c - N_s), (E_c - E_s)\}$$

where $\text{atan2}(\text{number1}, \text{number2})$ is the four-quadrant arctangent at $\text{number2} / \text{number1}$ in radians.

Wind Direction

Direction from which the wind is blowing. Measured positive clockwise from north. This number is given in weather files.

Calculation of K

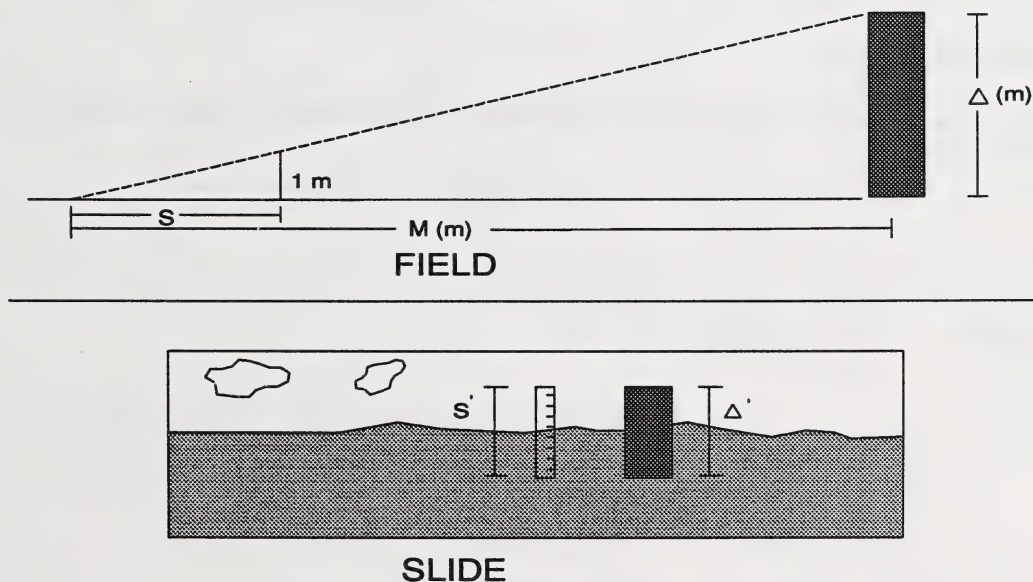


Figure C3.1

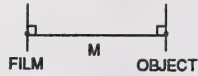
Schematic Showing How Δ , S , Δ' and S' were Measured.

Inputs: I - the height of the meter stick in the real world.
 Δ - the height of the object in the real world

The meter stick and the object are the same height in the example slide shown in Figure C3.1.

$$S' = \Delta'$$

M - the distance between the film plane and the object plane.



S - the perpendicular distance between the film plane and the meter stick plane.

$$\frac{\Delta'}{S'} = 1 = \frac{\Delta}{M} \frac{S}{1}$$

$$\Delta = \frac{\Delta' M}{S' S} \quad \text{if} \quad K = \frac{\Delta}{\Delta'} \quad \text{or} \quad \Delta = K \Delta'$$

then

$$K = \frac{M}{SS'} \quad \text{unit check} \quad \Delta(\text{m}) = \frac{\Delta'(\text{mm}) M(\text{m})}{S'(\text{mm}) S(\text{m})} 1(\text{m})$$

Calculation of Alpha (α)

Alpha is the angle between the perpendicular to the film plane at the camera and the line from the camera to the source.

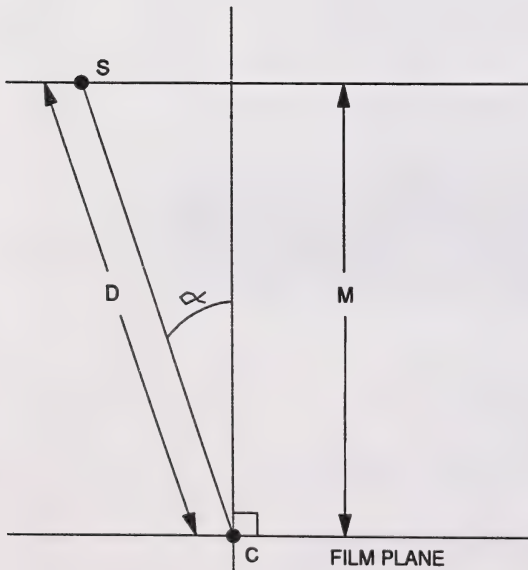


Figure C3.2

Schematic Showing α .

This calculation depends on information from the slides and physical dimensions from the field. Two equations existed. One was for the case with the meter stick marker in the center of the slide and the other with the meter stick marker much closer to the source (closer on the slide).

Inputs: D - the distance between camera and source.

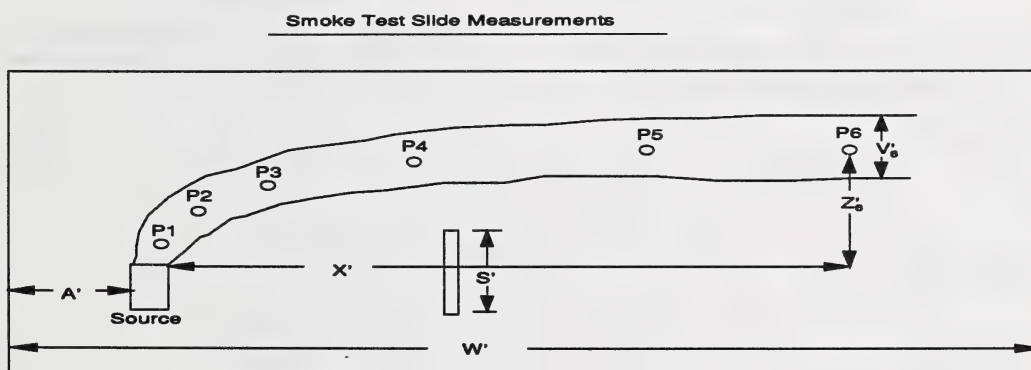
S' - length of marker on slide.

S - distance between camera and marker.

K - conversion factor between two planes parallel to the film plane $= M/S S'$

M - perpendicular distance between the film plane and the source.

Figure C3.3 shows the measurements that were taken from each slide.



1. W' = total width of film frame(mm)
2. A' = horizontal distance from edge of frame to source(mm)
3. Z' = height of plume at point P above the source(mm)
4. S' = height of metre stick(mm)
5. X' = horizontal distance from source to point P(mm)
6. V' = thickness of plume at point P(mm)

Figure C3.3
Slide Measurements

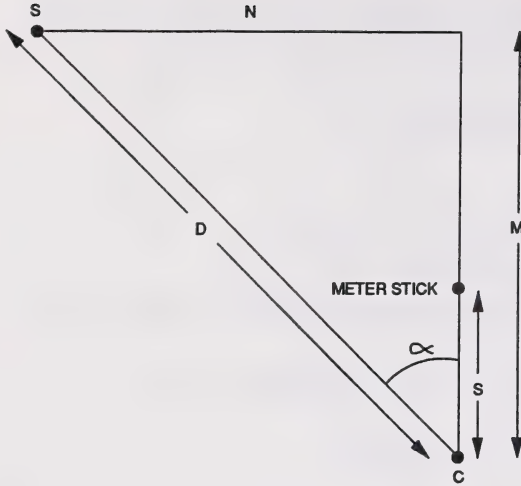


Figure C3.4

The Case with the Meter Stick Marker in the Center of the Slide.

$$\alpha = \tan^{-1} \frac{N}{M}$$

where $N = K \left(\frac{W'}{2} - a' \right)$

$$K = \frac{M}{SS'}$$

so
$$\alpha = \tan^{-1} \left(\frac{M \left(\frac{W'}{2} - a' \right)}{SS' M} \right)$$

$$\alpha = \tan^{-1} \left(\frac{\left(\frac{W'}{2} - a' \right)}{SS'} \right)$$

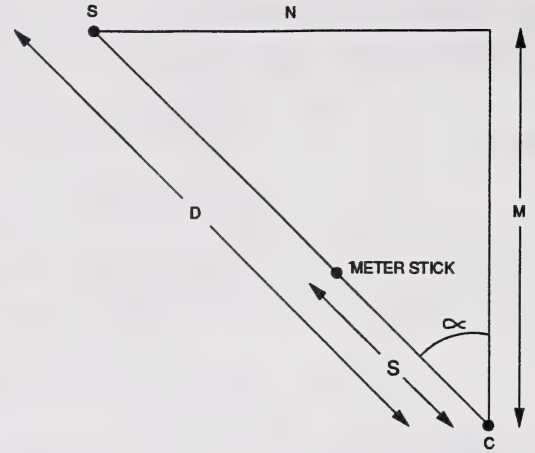


Figure C3.5

The Case with the Meter Stick Marker Much Closer to the Source (Closer on the Slide).

$$\alpha = \tan^{-1} \frac{N}{M}$$

where $N = K \left(\frac{W'}{2} - a' \right)$

$$K = \frac{M}{S \cos \alpha S'}$$

$$= \frac{D \cos \alpha}{S \cos \alpha S'} = \frac{D}{SS'}$$

so
$$\alpha = \tan^{-1} \left(\frac{D \left(\frac{W'}{2} - a' \right)}{SS' M} \right)$$

$$\frac{D}{M} = \frac{1}{\cos \alpha}$$

$$\tan \alpha = \frac{\left(\frac{W'}{2} - a' \right)}{S \cos \alpha S'}$$

$$\sin \alpha = \cos \alpha \tan \alpha = \frac{\left(\frac{W'}{2} - a' \right)}{SS'}$$

$$\alpha = \sin^{-1} \left(\frac{\left(\frac{W'}{2} - a' \right)}{SS'} \right)$$

Calculation of Beta (β)

Beta is the correction angle measured between the film plane and the wind direction. The angle is positive if the wind has a component from the camera towards the source (perpendicular) to film plane. It is negative if the wind has a component from the source to the camera in the direction of the perpendicular to the film plane.

It is dependent on the wind direction from the north, the orientation at the line connecting the source to the camera $S \rightarrow C$, the angle α as described early and whether the source is in the right or left half of the slide.

The calculations along with two figures appear below.

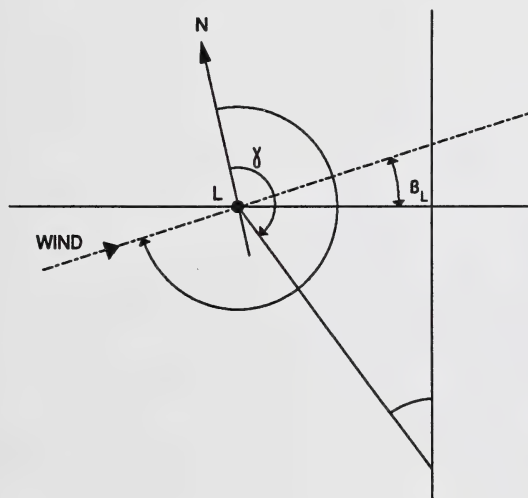


Figure C3.6

Schematic of β With Source in Left Half of Slide.

$$90 + \alpha = \beta_L + \epsilon - \gamma$$

$$\therefore \beta_L = 90 + \alpha - \epsilon + \gamma$$

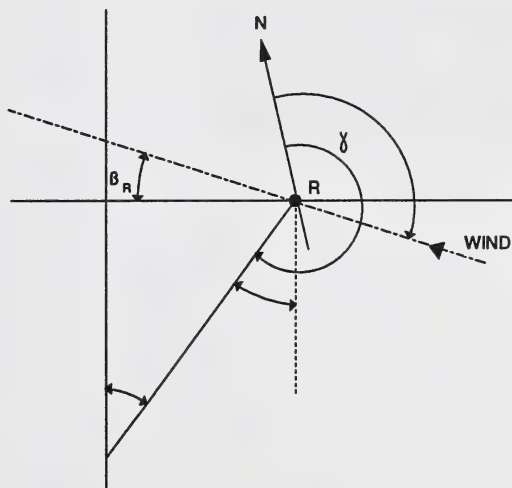


Figure C3.7

Schematic of β With Source in Right Half of Slide.

$$90 - \beta_R + \alpha = \gamma - \epsilon$$

$$\therefore \beta_R = 90 + \alpha - \gamma + \epsilon$$

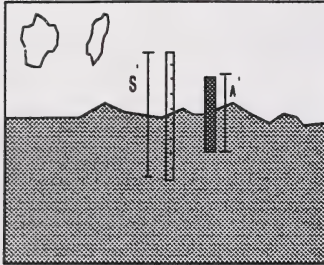
Remaining Calculations

The plume rise, plume thickness and downwind distance for the points along the plume were calculated using "Single-Camera Measurement at Smoke Plumes" by James Halitsky, 1960.

Non-Standard Procedure - Test 12

It was obvious from the slides that the camera position for test 12 was somewhere other than the reported stake position. The distance between the camera and the source was estimated by measuring the stack height from the slide and remeasuring only S' .

The Analysis



SLIDE

The ratio of the measured stack height and new meter stick height would be the same in the original slide. This ratio will be the value used to estimate the distance.

$$\Delta = K \Delta'$$

$$\Delta = 2.61 = K \Delta'_{\text{normalized}}$$

$$\Delta'_{\text{normalized}} = \frac{S'}{S'_{\text{new}}} \Delta'$$

$$\Delta' = 27$$

$$S'_{\text{new}} = 206$$

$$S' = 89$$

$$\Delta'_{\text{normalized}} = 11.67 \text{ mm}$$

$$K = \frac{2.61}{11.67} = 0.2237$$

use $\cos \alpha$ due to marker on right hand side

$$K = \frac{M}{SS' \cos \alpha}$$

$$M = 0.2237 SS' \cos(.2871 \text{ rad})$$

$$S = 10$$

$$S' = 89$$

$$M = 191 \text{ m}$$

Appendix C4

Source Mass Flow Rate Plots

Source Mass Flow Rate Plots

On the following pages are the figures that show the mass flow rates for each test. The mass flow rates in g/min are shown as a function of time. Both the flow meter and datalogger values are shown.

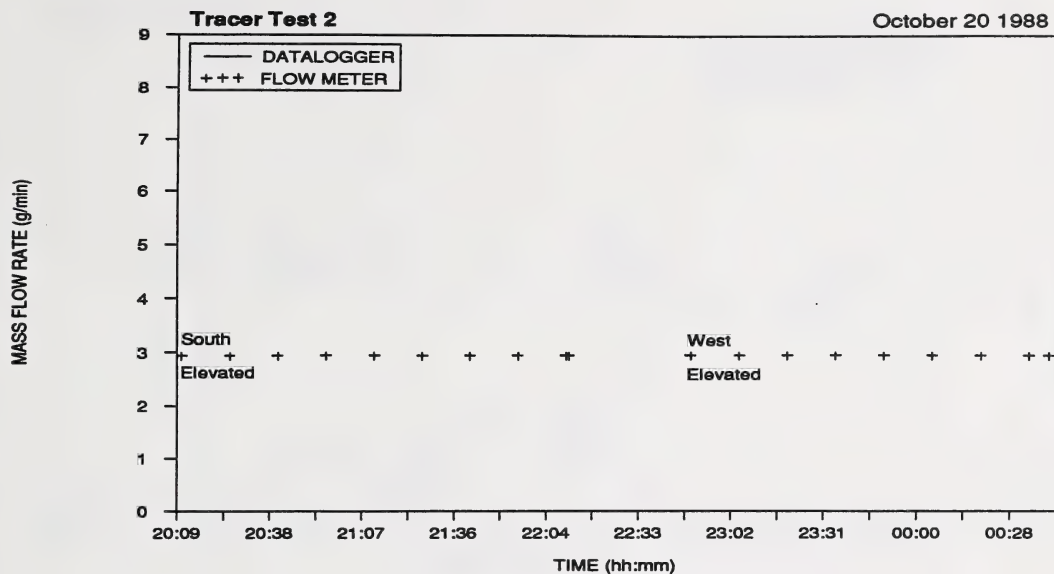


Figure C4.1
Source Mass Flow Rate for Test 2.

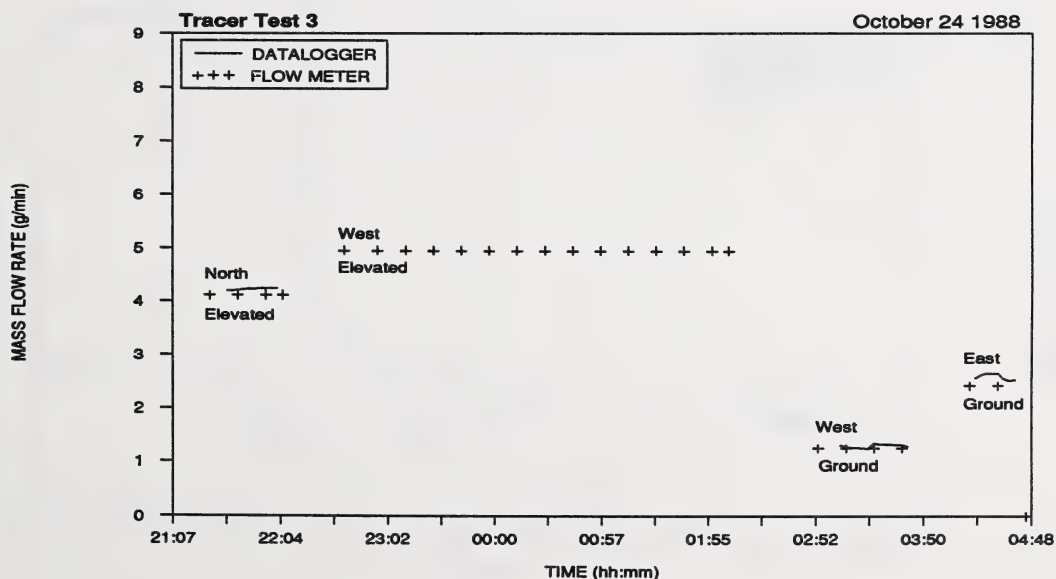


Figure C4.2
Source Mass Flow Rate for Test 3.

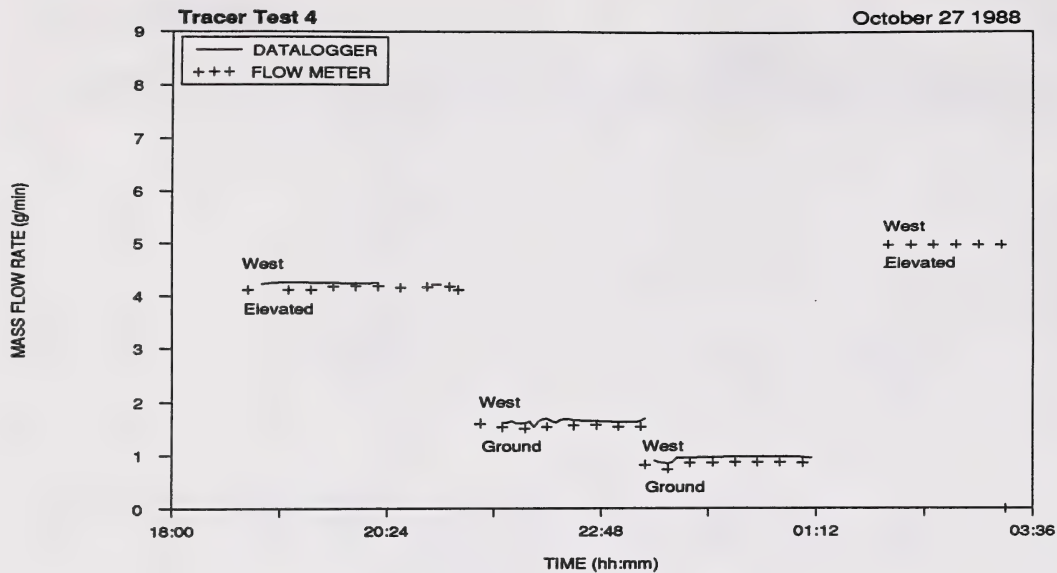


Figure C4.3
Source Mass Flow Rate for Test 4.

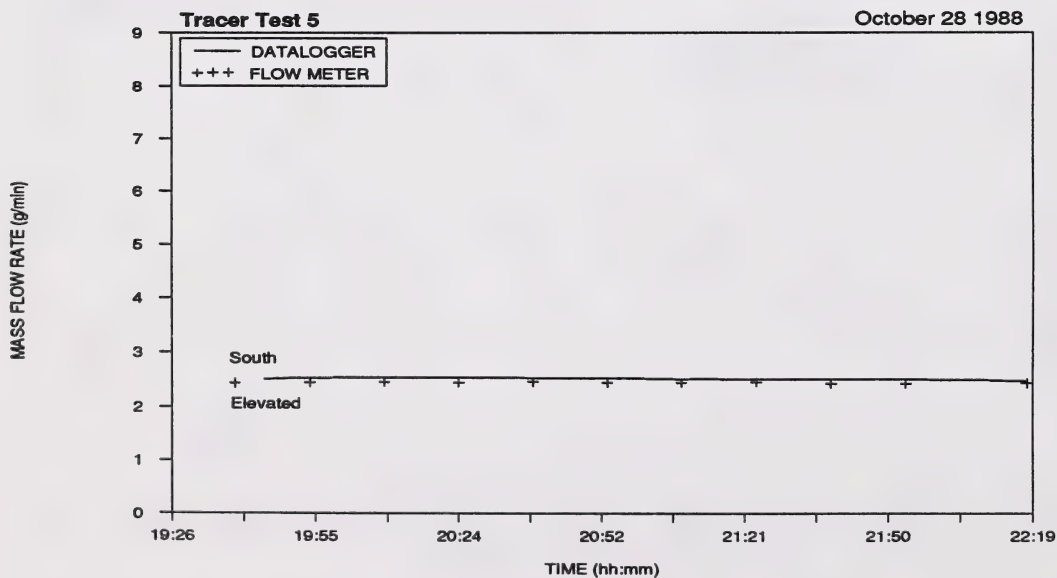


Figure C4.4
Source Mass Flow Rate for Test 5.

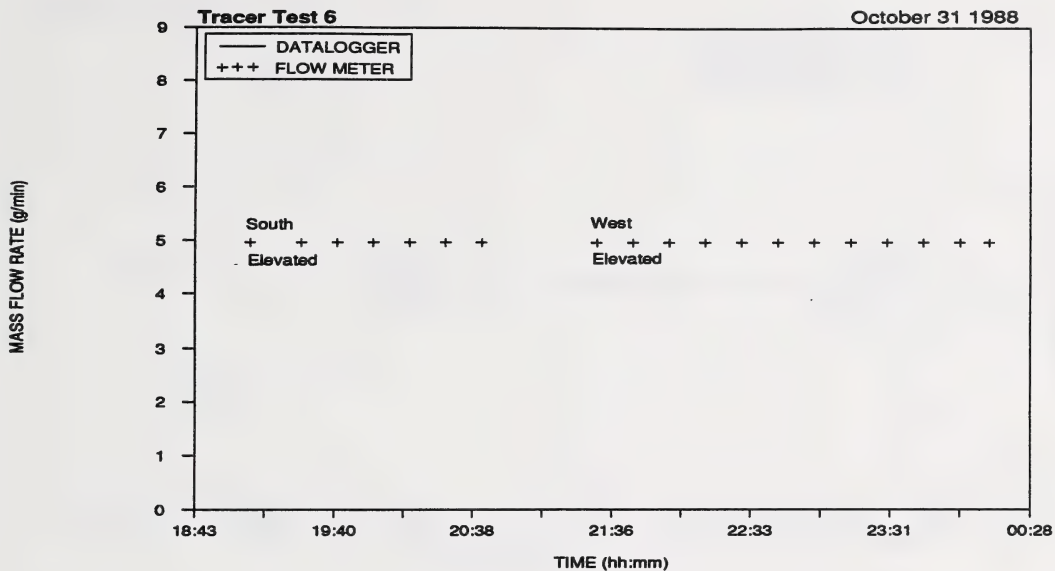


Figure C4.5
Source Mass Flow Rate for Test 6.

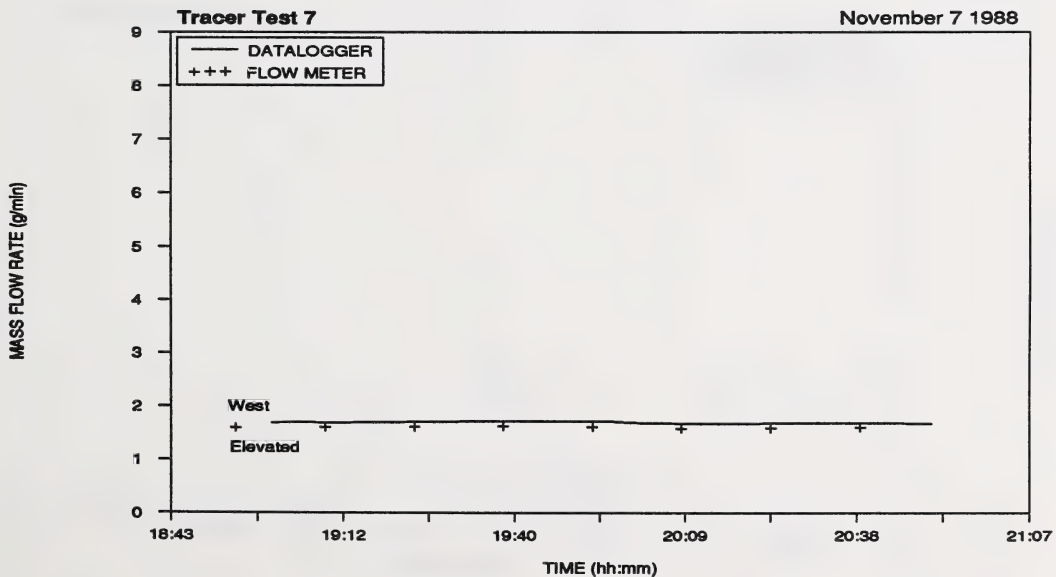


Figure C4.6
Source Mass Flow Rate for Test 7.

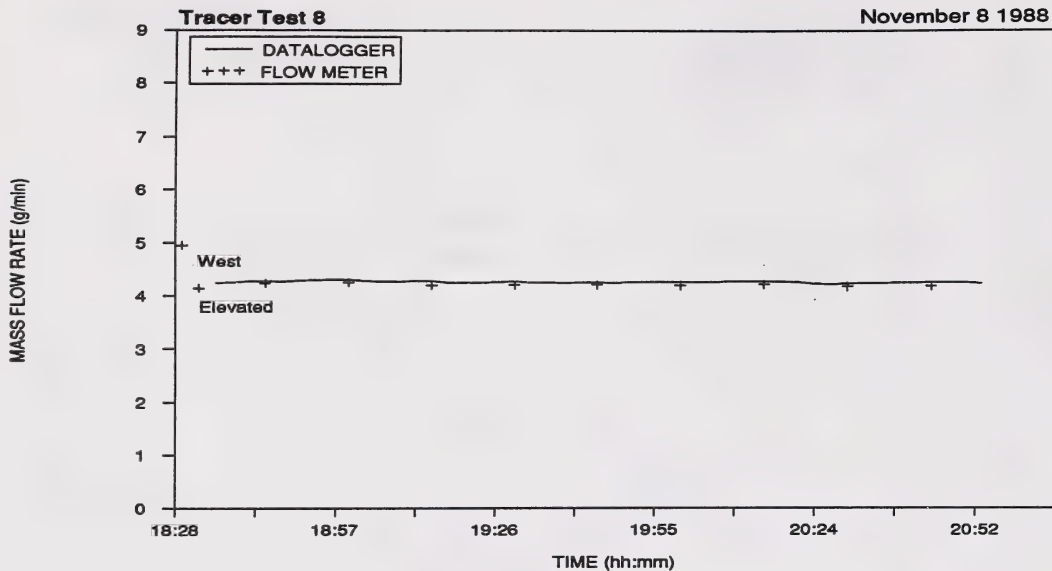


Figure C4.7
Source Mass Flow Rate for Test 8.

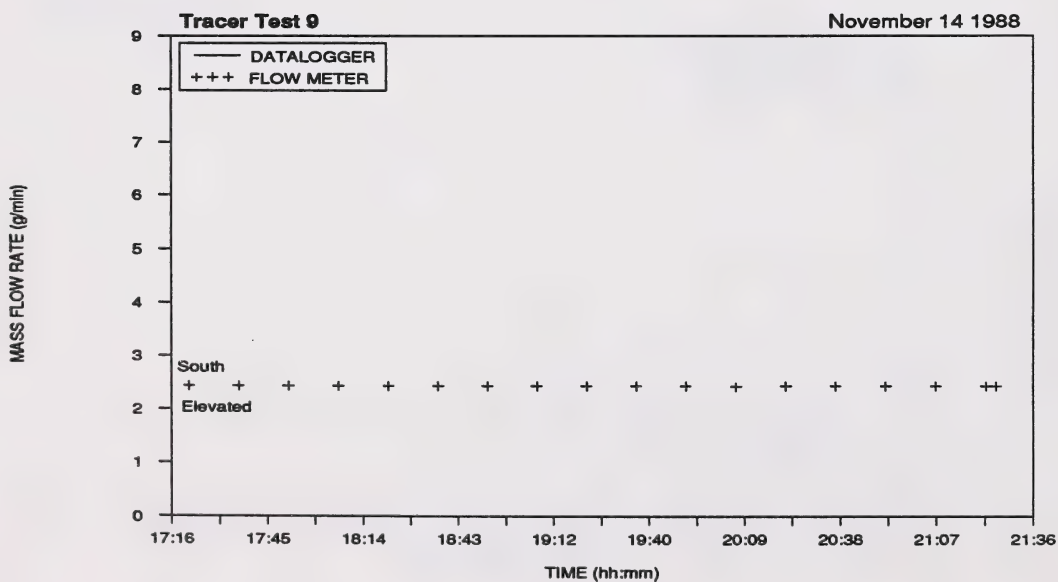


Figure C4.8
Source Mass Flow Rate for Test 9.

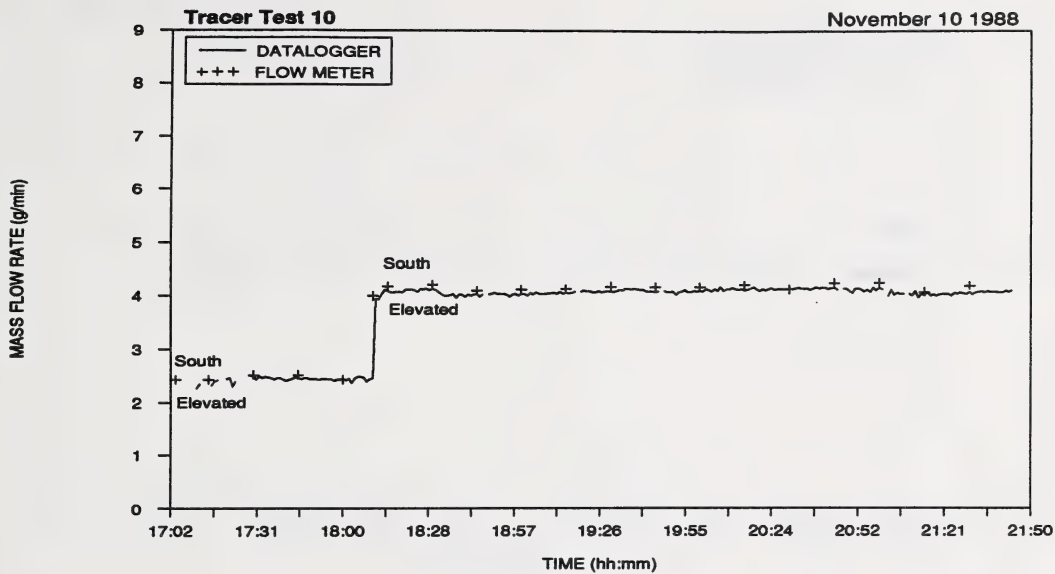


Figure C4.9
Source Mass Flow Rate for Test 10.

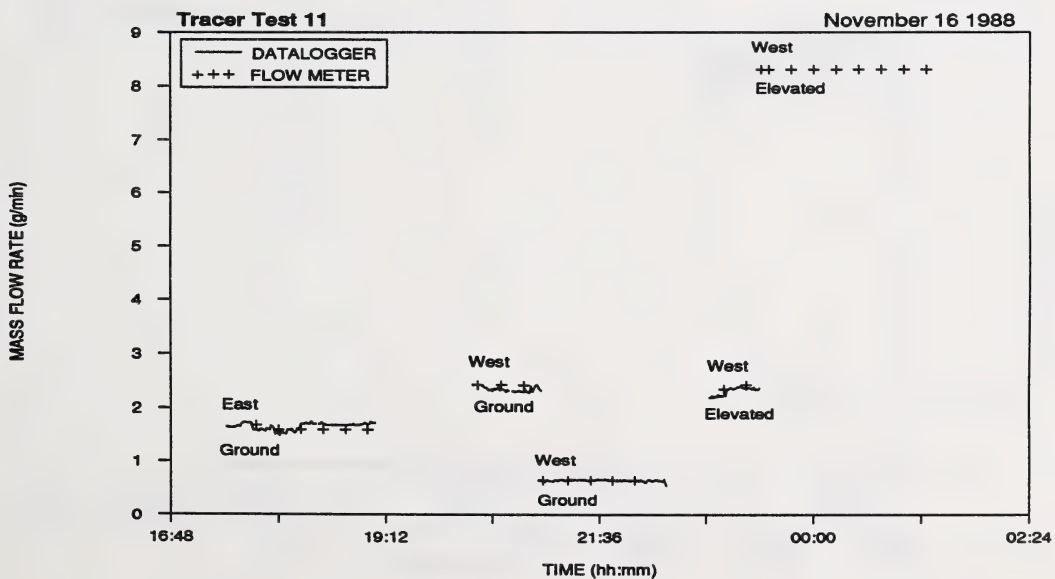


Figure C4.10
Source Mass Flow Rate for Test 11.

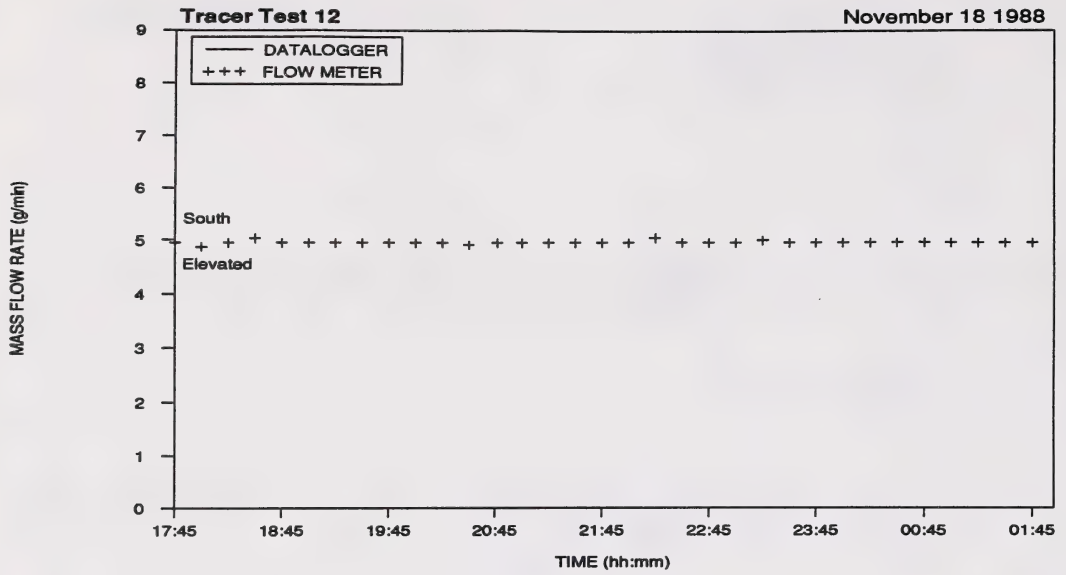


Figure C4.11
Source Mass Flow Rate for Test 12.

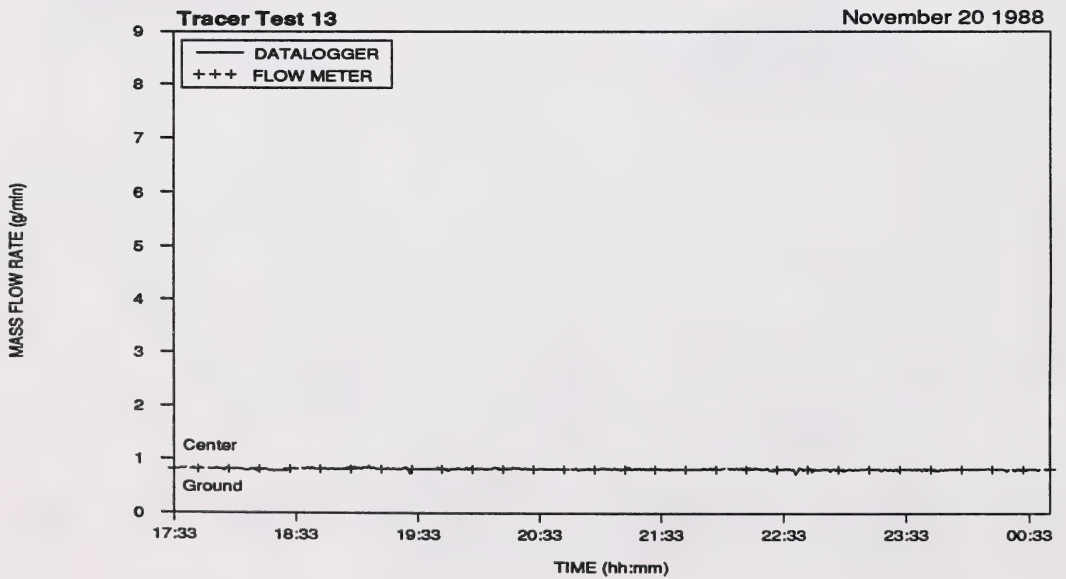


Figure C4.12
Source Mass Flow Rate for Test 13.

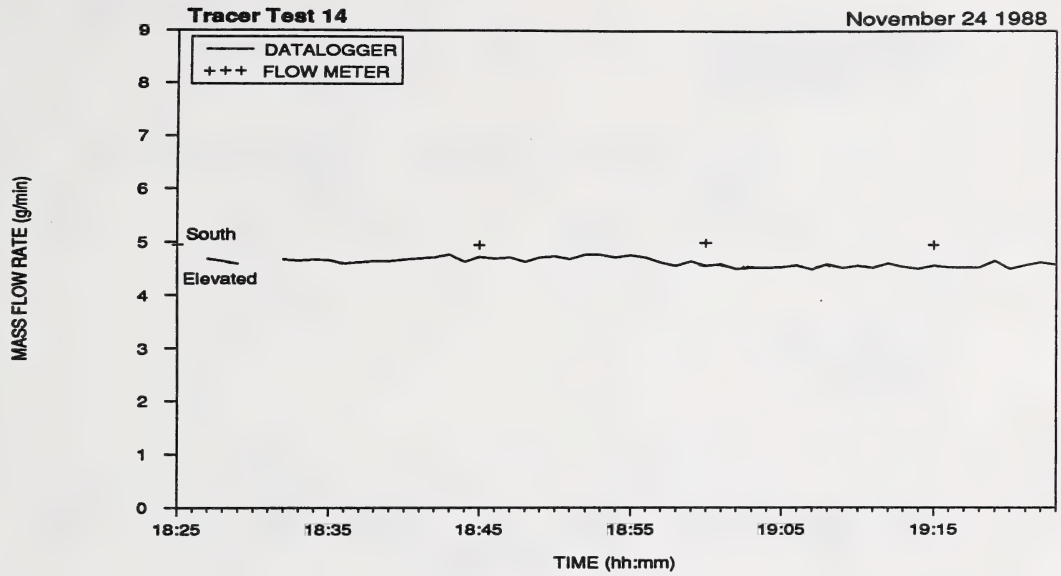


Figure C4.13
Source Mass Flow Rate for Test 14.

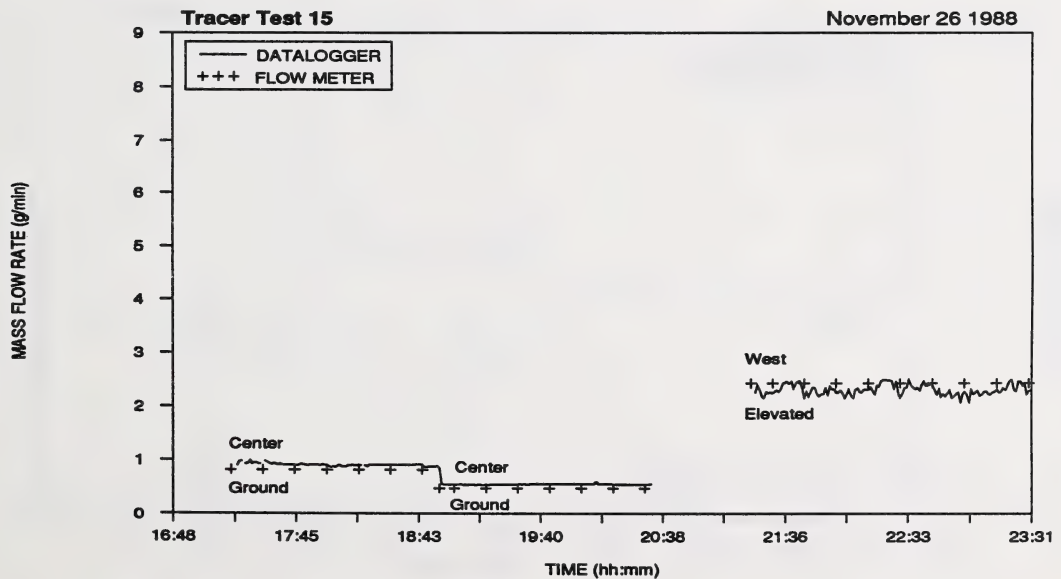


Figure C4.14
Source Mass Flow Rate for Test 15.

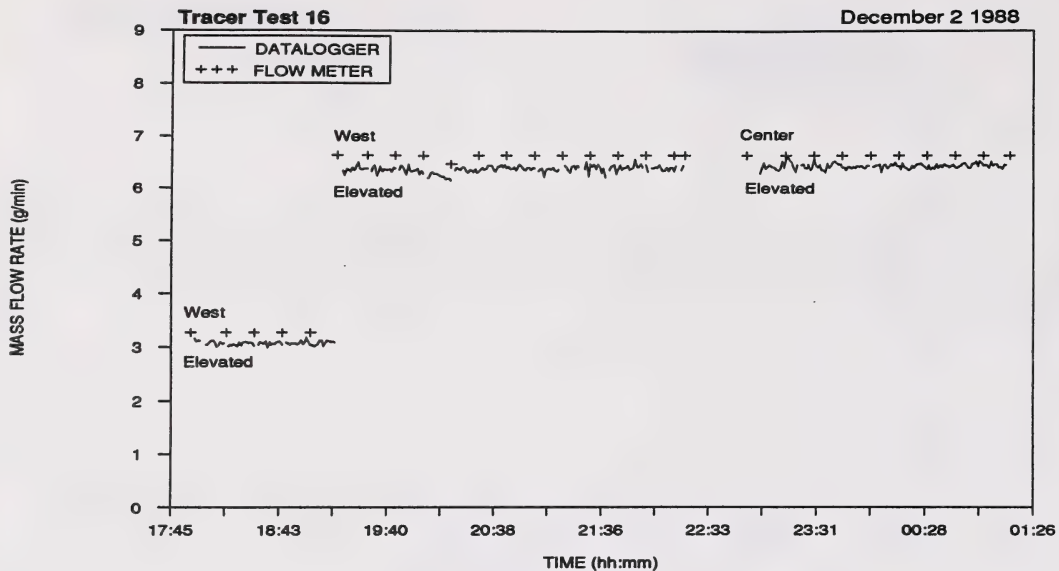


Figure C4.15

Source Mass Flow Rate for Test 16.

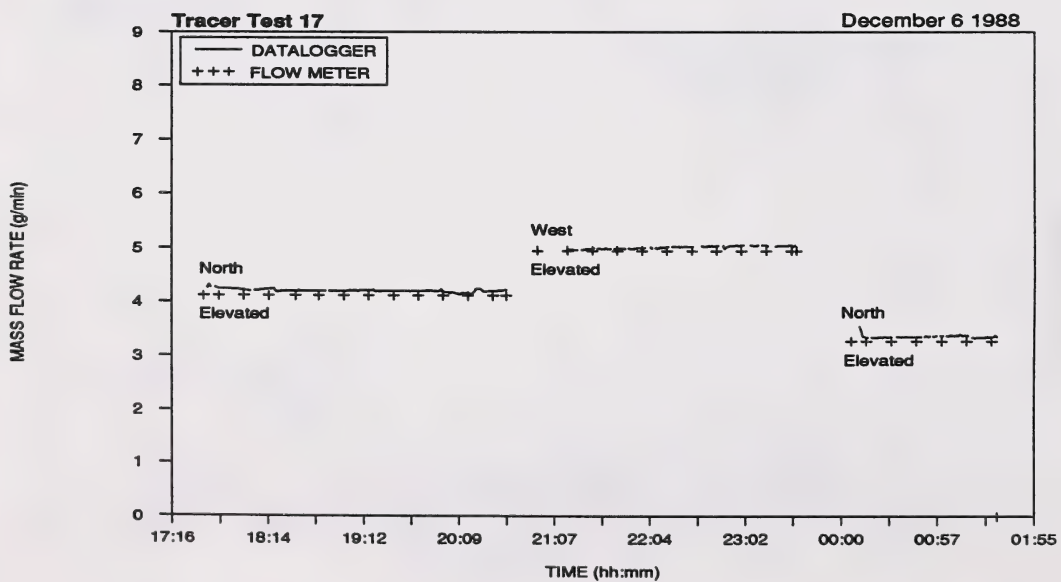


Figure C4.16

Source Mass Flow Rate for Test 17.

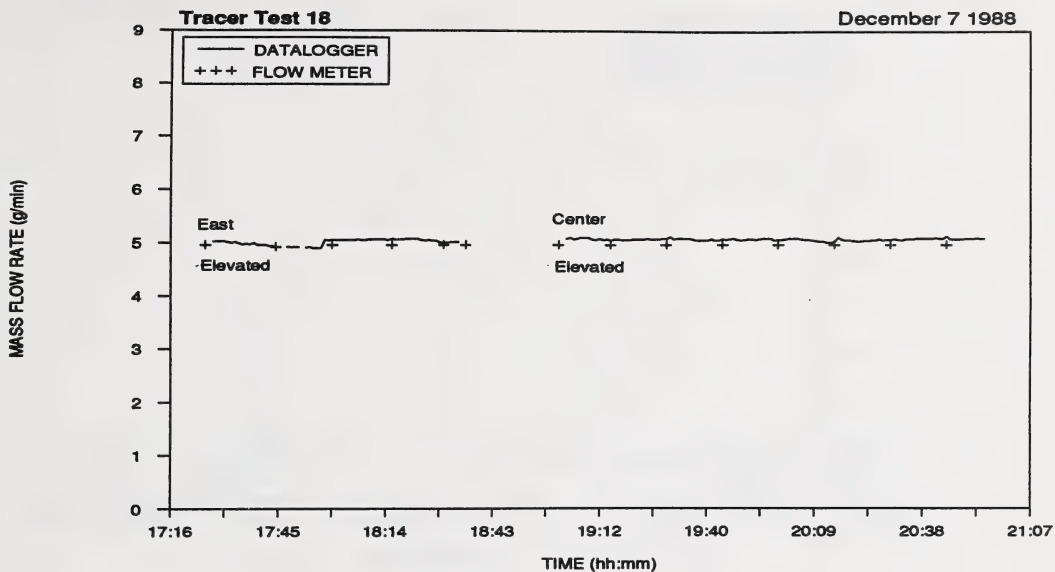


Figure C4.17
Source Mass Flow Rate for Test 18.

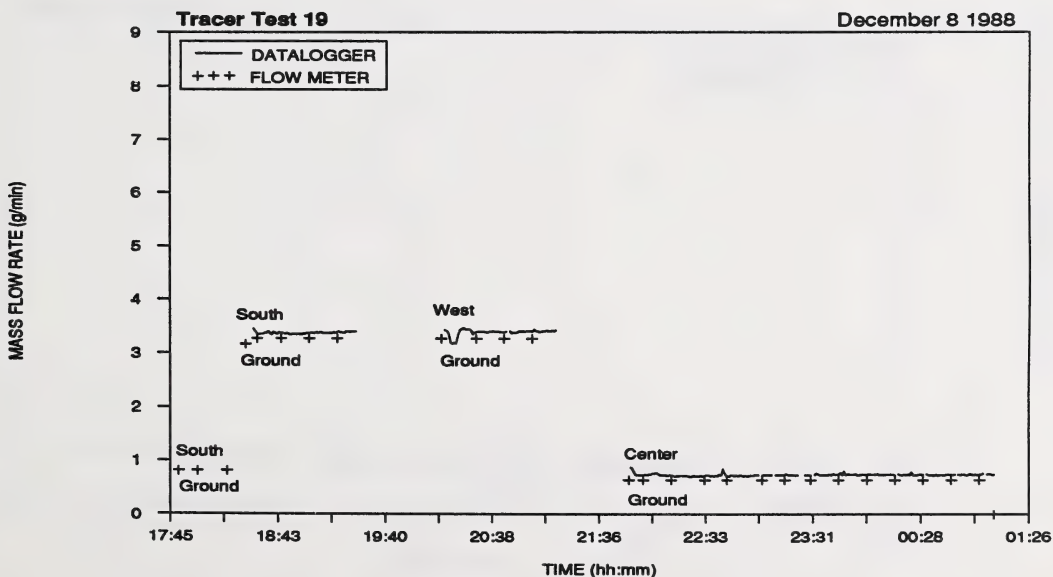


Figure C4.18
Source Mass Flow Rate for Test 19.

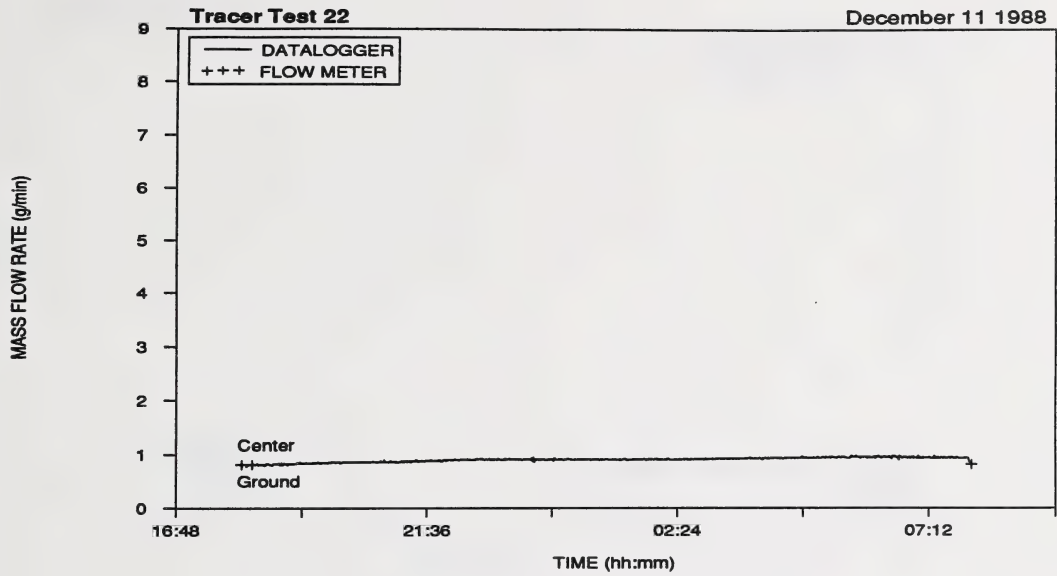


Figure C4.21
Source Mass Flow Rate for Test 22.

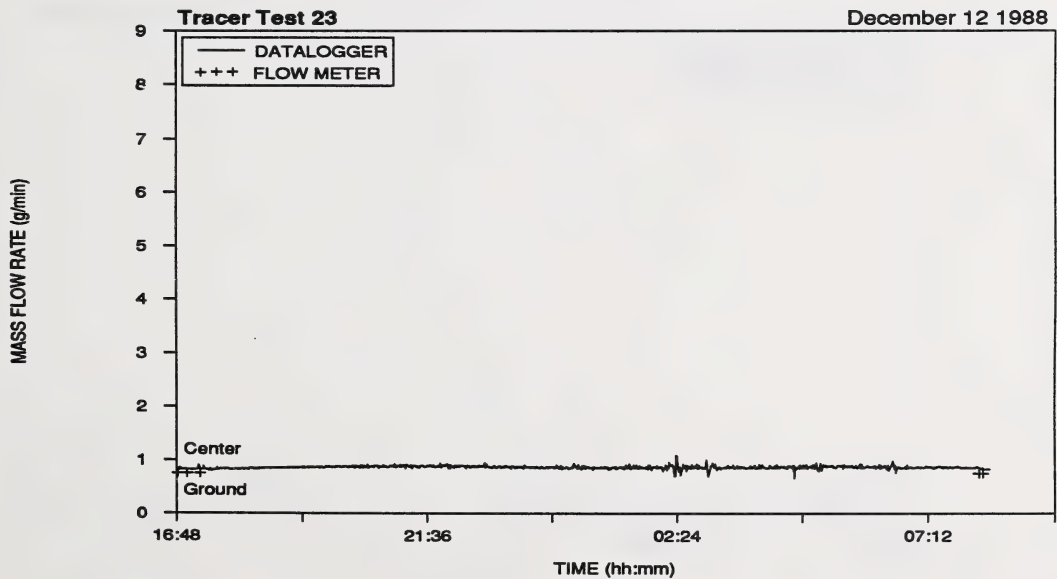


Figure C4.22
Source Mass Flow Rate for Test 23.

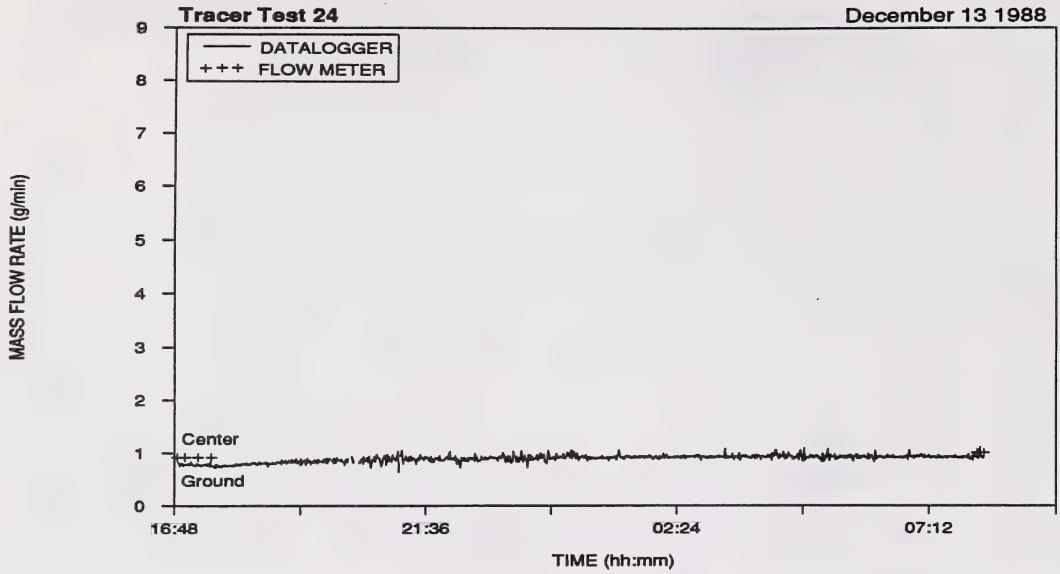


Figure C4.23
Source Mass Flow Rate for Test 24.

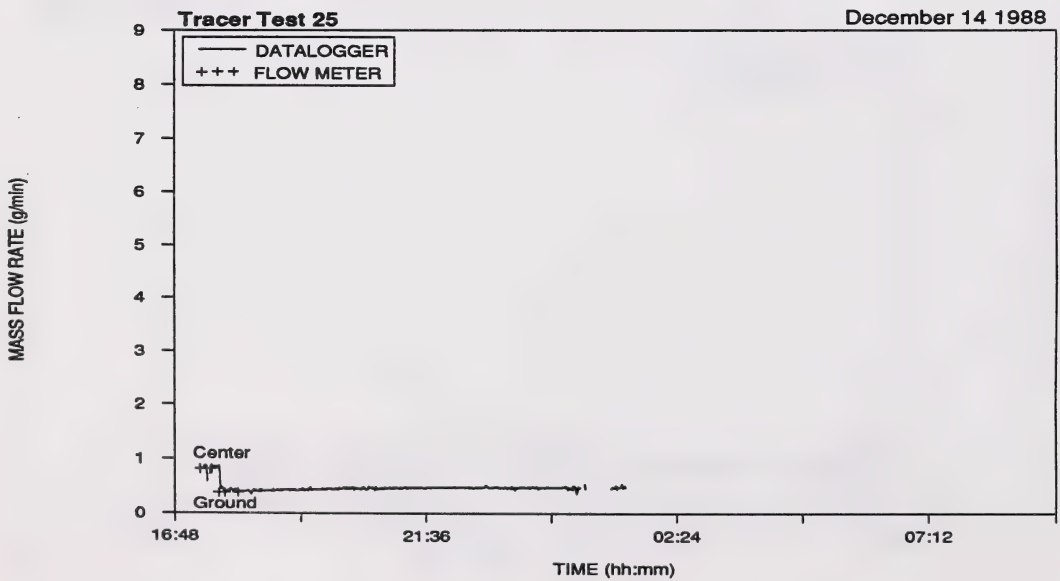


Figure C4.24
Source Mass Flow Rate for Test 25.

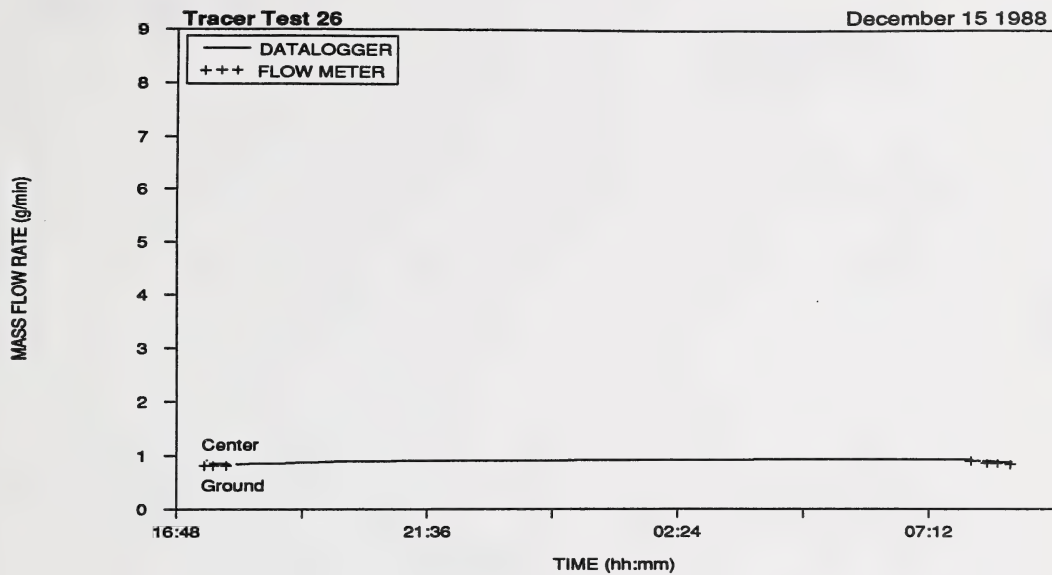


Figure C4.25
Source Mass Flow Rate for Test 26.

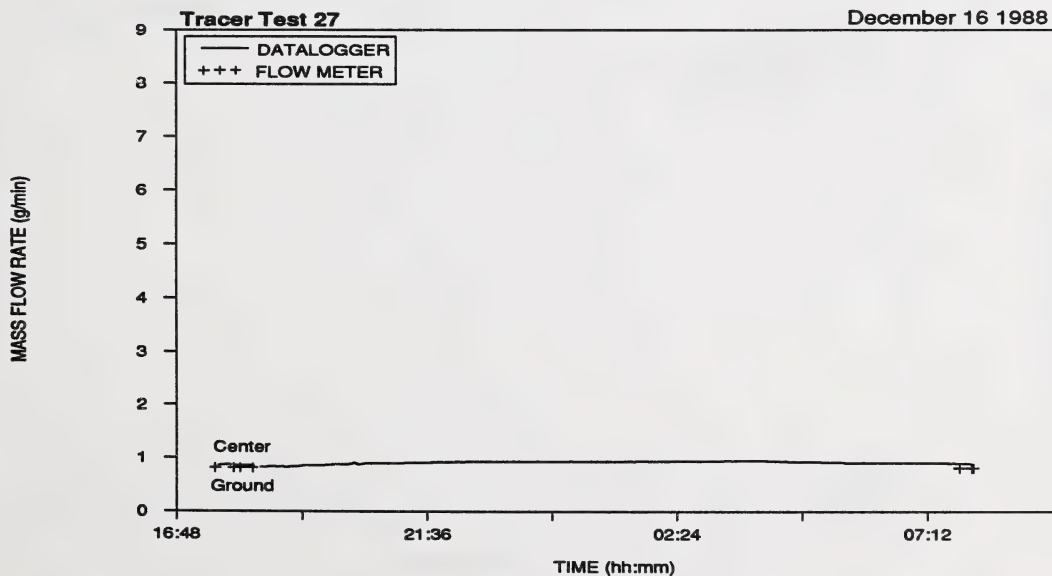


Figure C4.26
Source Mass Flow Rate for Test 27.

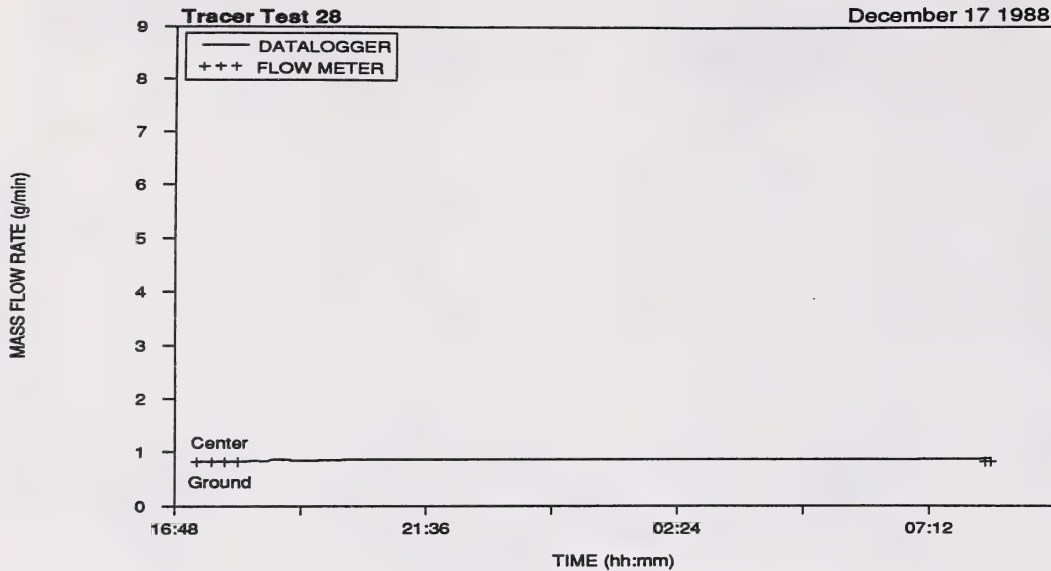


Figure C4.27
Source Mass Flow Rate for Test 28.

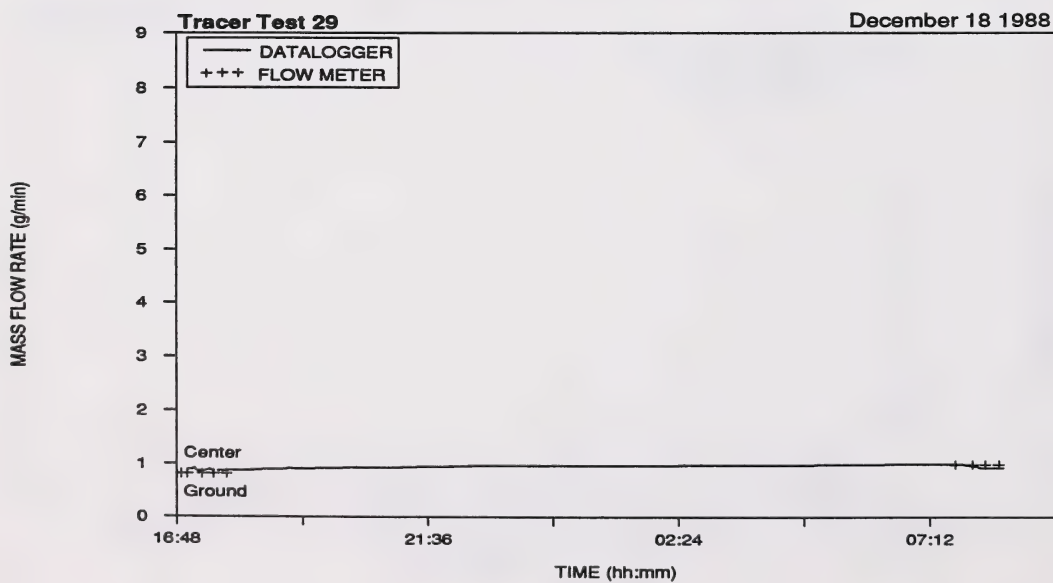


Figure C4.28
Source Mass Flow Rate for Test 29.

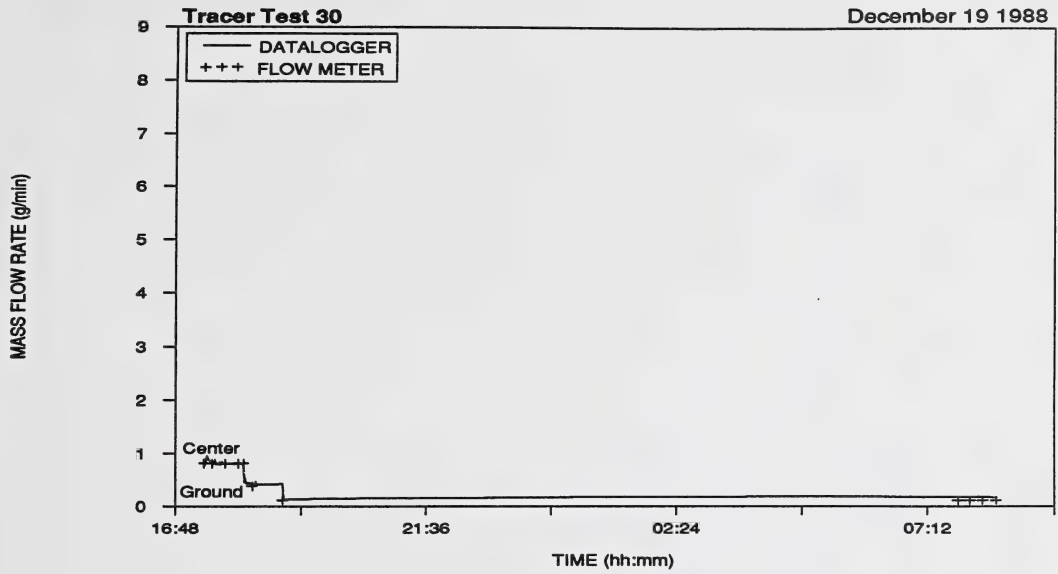


Figure C4.29
Source Mass Flow Rate for Test 30.

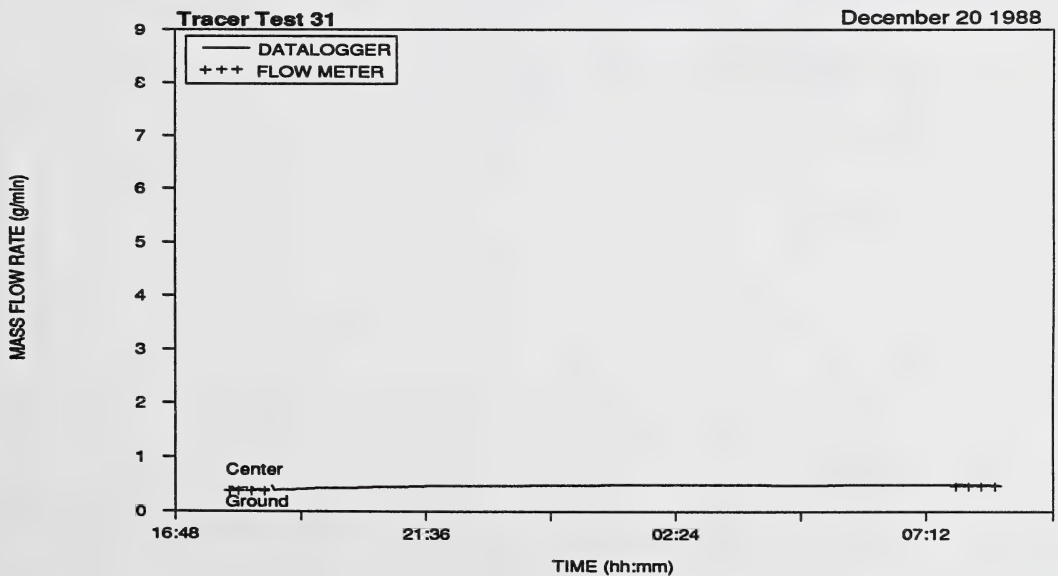


Figure C4.30
Source Mass Flow Rate for Test 31.

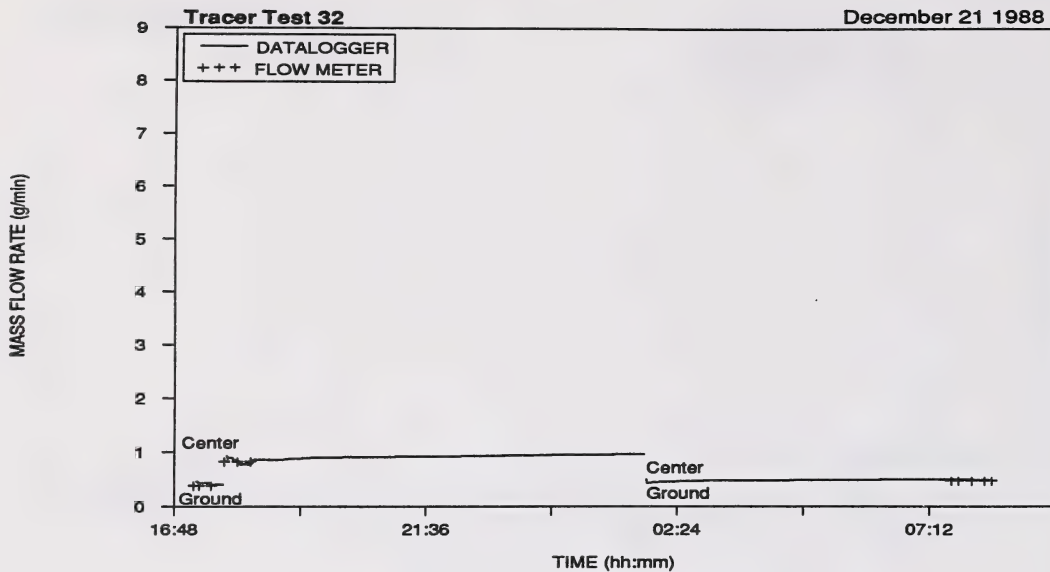


Figure C4.31
Source Mass Flow Rate for Test 32.

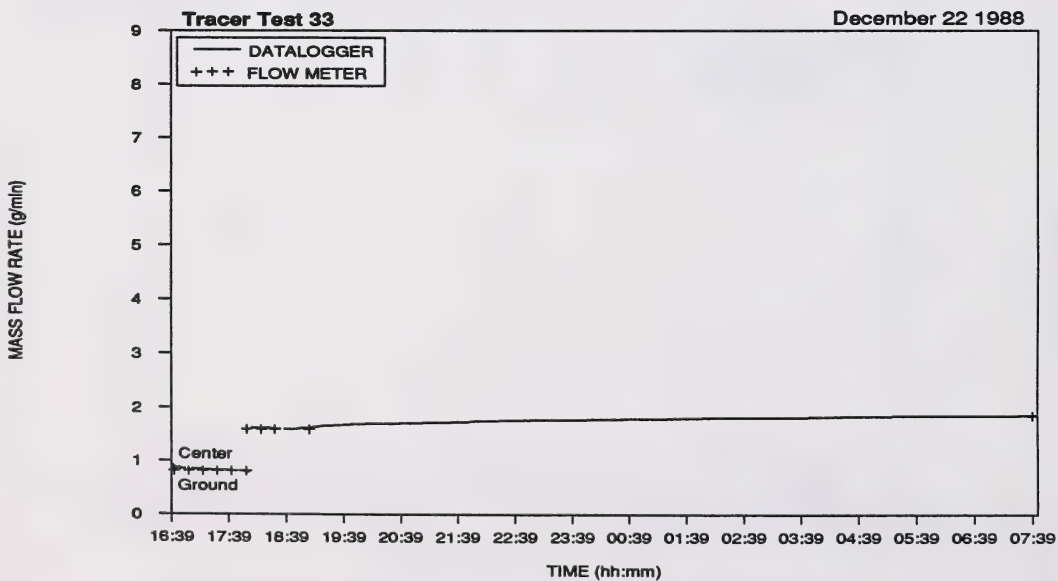


Figure C4.32
Source Mass Flow Rate for Test 33.

Appendix D1

Tethersonde Data Manipulation and Plots

Tethersonde Data Manipulation

From the paper tape, the collected data was transferred to Symphony worksheet files by manual data entry. Each test's data was entered into its own filename, while the launches in each test were separated within the file. The data that was entered from the tapes included time from station on (in minutes), Δ pressure (in mb), temperature (in °C), dew point temperature (in °C), wind speed (in m/s), wind direction (in degrees clockwise from north), and battery capacity (in % of remaining capacity). Also, the date and time of the test, as well as the lift-off time for the launch were recorded.

The first manipulation that was done was to determine the altitude of the tethersonde instruments from the pressure data. This was done using the differential equation

$$\frac{dP}{dZ} = -\rho g$$

which can be written as

$$\Delta Z = \frac{-\Delta P}{\rho g}$$

where: Z = height (m)
 P = pressure (Pa)
 ρ = air density (kg/m³)
 g = acceleration due to gravity (-9.81 m/s²).

The printout from the sonde supplies a differential pressure as opposed to an absolute pressure. The ambient pressure obtained from the met station was used as the reference pressure. ΔP reported at ground level was "converted" to give a differential of zero. This same correction was used to determine subsequent pressure values for other heights. The density of the air was then calculated for each reading using the equation

$$\rho = \frac{P}{RT}$$

where: T = measured temperature from tethersonde (K)
 R = gas constant for air (287 kJ/kg K).

An incremental height was found for each subsequent data value of pressure, from which the altitude of the tethersonde was determined. To compensate for the time in which the tethersonde was at "ground level" during synchronization, the height value for the data occurring at the 2 minute time value was set to 2 m, and was designated as the lift-off time and height. The 2 m value was chosen as it was the approximate height of the instrument package during synchronization time. The 2 minute synchronization time was used in all cases except when otherwise noted in the log book.

From the log book, the time of maximum ascent, start of descent, and time of "touchdown" were used to separate the data for the launch into ascending and descending portions, as well as to eliminate the data between end of ascent and start of descent, before ascent, and after descent.

The descending height values were obtained in the same manner as the ascending values, except the last value of descent, as determined by the "touchdown" time, was set to two metres, and the incremental height was determined backwards up to the start of descent as determined by the start of descent time.

In most of the graphs drawn, the top of the ascent and descent profiles do not match in height (as well as the data being measured). This difference is due to using a separate initial height for ascending and descending profiles, and also due to the 5-6 minutes the tether sonde was kept at the top of the ascent before beginning descent. The wind fluctuations during this time caused the tether sonde to fluctuate in height after the end-of-ascent time values, and before the start-of-descent time values were taken. However, the difference between the two "top" values was no more than about 10 m.

Due to various reasons, the tether sonde did not ascend (and descend) at uniform rates, causing repetitive values of measurements to be taken at the same pressure value (and therefore same height), and also measurements to be taken at heights lower than already obtained when ascending and heights higher than those descended to when descending. Although these data values were not inaccurate, by excluding them a clearer profile was obtained. Most of these extraneous values were eliminated while worksheet manipulations were being done, and the rest were eliminated during graph manipulations in Freelance. Whenever possible, the first value in a repetitive group was retained.

In some cases, only a part of the ascent (or descent) profile was drawn due to malfunctions in the instrument during data collection, which included launching before synchronization had occurred. As much of the data that could have been saved was retained, and those plots with partial profiles were marked by "Note: not all data obtained". These graphs were:

- Test 03, Launch 04, ascent
- Test 03, Launch 07, ascent and descent
- Test 03, Launch 12, ascent
- Test 06, Launch 02, descent

In a few cases, too much of the collected data during a launch was spurious to obtain a graph. Due to this reason, as well as cancellation of launches due to excessive wind speeds (> 5 m/d at ground level) and equipment malfunctions, graphs for only 44 launches (i.e. 88 profiles) were created from the more than 68 planned launches.

For graphing purposes, temperature, dew point temperature, wind speed, and wind direction were plotted versus height (on the vertical axis). The scale for the temperature, dew point, and wind speed was placed on the bottom of the graph (labeled m/s and °C). The wind direction scale was placed at the top as it was a fixed scale between 0 and 360 degrees (or sometimes between 180 and 180 with 0 in the middle so as to eliminate the distortion occurring due to wind direction changes across the 0-360 "boundary"). The temperature profile was drawn in a heavy, solid line and was labeled T(C). The dew point temperature profiles was depicted with a light, long-dash line, and was labeled Td(C). The wind speed profile was labeled U(m/s), and was drawn with a heavy, short-dash line. The wind direction was depicted with a light, short-dash line, and was labeled D(deg).

From each height that was drawn, the location of discontinuities in the profiles were taken as possible mixing layer heights. The degree to which a discontinuity was chosen was not always the same, and so an arbitrary grade was used for each discontinuity recorded. The reliability grades that were used were "good", "fair" and "poor". "Good" was used when a very clear discontinuity was evident at a particular height, without much question as to the exact height of the discontinuity. "Fair" was used either when an obvious discontinuity existed but at a height

that was an estimate of the intersection of the two slopes that depicted the profile before and after the discontinuity, or when a discontinuity was evident, but not very clearly. The "poor" grade was used only when the discontinuity chosen was not clearly evident in the profile, but some change in the profile was seen. Discontinuities due to a single point were ignored as much as possible, or downgraded.

Table D1
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T03L02A	U (m/s)	5	G
	U (m/s)	23	G
	Td (C)	10	F
	T (C)	12	F
T03L02D	U (m/s)	8	G
	U (m/s)	18	F
	U (m/s)	23	F
	Td (C)	10	F
	T (C)	10	F
	D (deg)	30	F
T03L03A	U (m/s)	6	F
	Td (C)	6	F
	T (C)	7	F
	D (deg)	8	P
T03L03D	U (m/s)	41	F
	D (deg)	7	F
	D (deg)	42	F
T03L04A	U (m/s)	53	F
	D (deg)	36	F
T03L04D	U (m/s)	10	G
	U (m/s)	17	F
	Td (C)	12	F
	T (C)	8	F
	D (deg)	10	G
T03L06A	U (m/s)	9	G
	U (m/s)	25	F
	Td (C)	13	G
	T (C)	19	G
T03L06D	U (m/s)	12	G
	U (m/s)	25	P
	Td (C)	15	F
	T (C)	12	F
	D (deg)	7	F
T03L07A	N/A		
T03L07D	N/A		

Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T03L08A	U (m/s)	15	G
	T (C)	12	P
	T (C)	22	F
	Td (C)	10	F
	Td (C)	21	F
	D (deg)	10	F
T03L08D	U (m/s)	9	F
	U (m/s)	18	F
	U (m/s)	55	F
	U (m/s)	58	G
	U (m/s)	63	F
	Td (C)	12	F
	Td (C)	18	F
	T (C)	11	F
	T (C)	19	F
	D (deg)	13	P
T03L09A	U (m/s)	13	F
	U (m/s)	20	F
	U (m/s)	36	F
	T (C)	42	P
	Td (C)	13	P
	Td (C)	33	P
	Td (C)	41	P
T03L10A	U (m/s)	13	F
	U (m/s)	24	F
	U (m/s)	35	F
	U (m/s)	60	P
	Td (C)	20	P
	Td (C)	27	G
	Td (C)	60	F
	T (C)	13	F
	T (C)	27	G
	T (C)	59	F
	D (deg)	20	P
	D (deg)	28	F
	D (deg)	48	P
	D (deg)	60	G

Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T03L10D	U (m/s)	22	F
	U (m/s)	33	P
	U (m/s)	65	G
	Td (C)	13	P
	Td (C)	42	P
	Td (C)	50	F
	T (C)	18	F
	T (C)	37	F
T03L11A	U (m/s)	11	F
	U (m/s)	34	F
	U (m/s)	45	P
	U (m/s)	58	G
	T (C)	18	F
	T (C)	53	G
	Td (C)	14	F
	Td (C)	53	G
T03L11D	D (deg)	57	F
	U (m/s)	12	G
	U (m/s)	43	G
	U (m/s)	47	P
	U (m/s)	59	F
	Td (C)	12	F
	Td (C)	45	P
	T (C)	13	F
T03L12A	T (C)	45	F
	D (deg)	35	F
	D (deg)	48	F
	U (m/s)	36	G
	U (m/s)	49	G
	U (m/s)	65	G
	Td (C)	40	P
	T (C)	48	F
T03L12D	T (C)	37	F
	U (m/s)	15	F
	U (m/s)	21	F
	U (m/s)	38	G
	U (m/s)	48	G
	T (C)	19	F
	T (C)	38	P
	Td (C)	18	P
	Td (C)	50	P
	D (deg)	37	P

Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T04L03A	U (m/s)	17	F
T04L03D	U (m/s)	12	G
	T (C)	14	P
T04L04A	U (m/s)	22	F
	T (C)	22	F
T04L04D	U (m/s)	14	F
	T (C)	15	F
T05L01A	U (m/s)	17	P
	T (C)	17	F
T05L01D	T (C)	22	P
	U (m/s)	23	P
T06L01A	U(m/s)	40	F
	T(c)	23	F
	Td(c)	20	F
T06L01D	U(m/s)	14	F
	U(m/s)	35	F
	Td(c)	32	P
	T(c)	32	F
	D(deg)	22	F
T06L02A	U (m/s)	18	G
	U (m/s)	42	F
	U (m/s)	60	G
	T (C)	42	G
	Td (C)	10	F
	Td (C)	42	G
	D (deg)	30	P

Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T06L02D	U (m/s)	21	G
	U (m/s)	30	P
	U (m/s)	40	F
	U (m/s)	55	F
	T (C)	20	P
	T (C)	28	F
	T (C)	38	F
	T (C)	50	F
	T (C)	58	F
	Td (C)	21	F
	Td (C)	29	F
	Td (C)	40	F
	Td (C)	50	F
	D (deg)	40	F
	D (deg)	62	F
T08L01A	U (m/s)	7	G
	U (m/s)	28	P
	U (m/s)	48	P
	Td (C)	11	F
	T (C)	15	F
	D (deg)	7	F
	D (deg)	31	G
	D (deg)	46	F
T08L01D	U (m/s)	21	F
	U (m/s)	43	G
	D (deg)	40	P
	D (deg)	58	G
	T (C)	48	P
	Td (C)	35	F
	Td (C)	64	F
T08L02A	U (m/s)	18	F
	T (C)	19	G
	Td (C)	15	F
	D (deg)	16	P
T08L02D	U (m/s)	15	G
	U (m/s)	49	P
	U (m/s)	64	P
	T (C)	15	F
	Td (C)	17	F
	D (deg)	46	F

Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T08L03A	U (m/s)	14	G
	U (m/s)	32	F
	U (m/s)	65	F
	Td (C)	17	F
	T (C)	28	F
	D (deg)	63	F
T08L03D	U (m/s)	16	G
	T (C)	16	G
	Td (C)	19	F
	D (deg)	42	P
T09L01A	D (deg)	47	F
T09L01D	N/A		
T09L02A	Td (C)	15	P
	U (m/s)	16	P
T09L02D	N/A		
T09L03A	N/A		
T09L03D	N/A		
T09L04A	N/A		
T09L04D	N/A		
T11L02A	N/A		
T11L02D	U (m/s)	28	F
T11L03A	U (m/s)	33	G
	U (m/s)	54	F
	T (C)	8	P
	D (deg)	24	F
T11L03D	U (m/s)	6	G
	U (m/s)	49	F
	U (m/s)	55	P
	T (C)	7	G
	T (C)	28	P
	Td (C)	6	F
	Td (C)	22	F
	D (deg)	6	P
	D (deg)	25	F

Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T11L04A	U (m/s)	24	P
	U (m/s)	36	P
	Td (C)	12	P
	Td (C)	33	F
	Td (C)	39	P
	T (C)	12	F
	T (C)	31	F
	T (C)	41	F
	D (deg)	9	P
	D (deg)	23	P
	D (deg)	33	P
T11L04D	U (m/s)	17	F
	U (m/s)	42	F
	Td (C)	13	F
	Td (C)	34	F
	Td (C)	44	P
	T (C)	13	F
	T (C)	39	F
	D (deg)	38	P
T12L02A	U (m/s)	67	P
	T (C)	70	P
	Td (C)	68	P
	D (deg)	67	P
T12L02D	U (m/s)	10	P
	Td (C)	8	P
	Td (C)	60	F
	Td (C)	65	F
	T (C)	58	P
	T (C)	66	F
T12L03A	U (m/s)	19	F
	U (m/s)	45	F
T12L03D	U (m/s)	13	P
	U (m/s)	28	F
	D (deg)	12	P
	D (deg)	45	P
T12L04A	U (m/s)	28	P
	U (m/s)	38	P
	T (C)	62	F
T12L04D	U (m/s)	10	P
	U (m/s)	13	F

Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T13L01A	U (m/s)	17	F
	U (m/s)	27	P
	U (m/s)	43	F
	U (m/s)	62	F
	T (C)	10	F
	T (C)	37	F
	Td (C)	11	F
	D (deg)	10	F
	D (deg)	20	F
	D (deg)	31	F
	D (deg)	37	F
T13L01D	U (m/s)	14	F
	U (m/s)	19	F
	U (m/s)	45	P
	U (m/s)	62	F
	U (m/s)	66	F
	T (C)	12	P
	T (C)	19	F
	T (C)	44	F
	T (C)	76	F
	Td (C)	13	P
	Td (C)	18	P
	Td (C)	44	F
	Td (C)	76	F
	D (deg)	9	P
	D (deg)	41	P
	D (deg)	61	P
T13L02A	U (m/s)	9	F
	U (m/s)	23	P
	Td (C)	9	F
	Td (C)	22	F
	T (C)	9	F
	T (C)	22	F
	D (deg)	8	F
	D (deg)	11	F
	D (deg)	23	F

Table D1 (continued)

Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T13L02D	U (m/s)	12	F
	U (m/s)	23	F
	U (m/s)	56	F
	T (C)	24	F
	Td (C)	24	F
	D (deg)	7	P
T13L03A	N/A		
T13L03D	N/A		
T13L05A	U (m/s)	17	F
	U (m/s)	40	F
	U (m/s)	49	F
	T (C)	46	G
	Td (C)	47	G
	D (deg)	18	F
T13L05D	U (m/s)	14	F
	U (m/s)	64	F
	T (C)	12	F
	T (C)	62	P
	Td (C)	57	P
T13L06A	T (C)	15	P
T13L06D	N/A		
T15L01A	U (m/s)	19	F
	T (C)	10	F
	Td (C)	7	P
	D (deg)	22	F
T15L01D	U (m/s)	28	P
	U (m/s)	60	P
	Td (C)	17	P
	T (C)	20	P
	D (deg)	20	F
	D (deg)	67	F
T15L02A	U (m/s)	28	P
	D (deg)	12	P
T15L02D	U (m/s)	7	P
	Td (C)	8	F
	T (C)	8	G
	D (deg)	7	F

Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T16L01A	U (m/s)	15	P
	U (m/s)	25	F
	U (m/s)	28	F
	U (m/s)	37	G
	U (m/s)	39	F
	U (m/s)	47	F
	Td (C)	8	P
	Td (C)	12	P
	Td (C)	16	F
	Td (C)	24	P
	Td (C)	37	G
	Td (C)	40	F
	Td (C)	46	F
	T (C)	9	F
	T (C)	15	F
	T (C)	24	F
	T (C)	38	F
	T (C)	46	F
	D (deg)	8	P
	D (deg)	15	F
	D (deg)	19	P
	D (deg)	39	F
	D (deg)	47	P
T16L01D	U (m/s)	6	G
	U (m/s)	12	F
	T (C)	13	F
T16L03A	U (m/s)	19	G
	Td (C)	16	F
	Td (C)	48	F
	T (C)	45	F
	D (deg)	10	P
	D (deg)	28	F
T16L03D	D (deg)	39	F
	U (m/s)	19	F
	U (m/s)	50	P
	U (m/s)	62	F
	T (C)	11	P
	T (C)	25	F
	Td (C)	12	P
T17L02A	Td (C)	26	F
	N/A		
T17L02D	U (m/s)	66	G

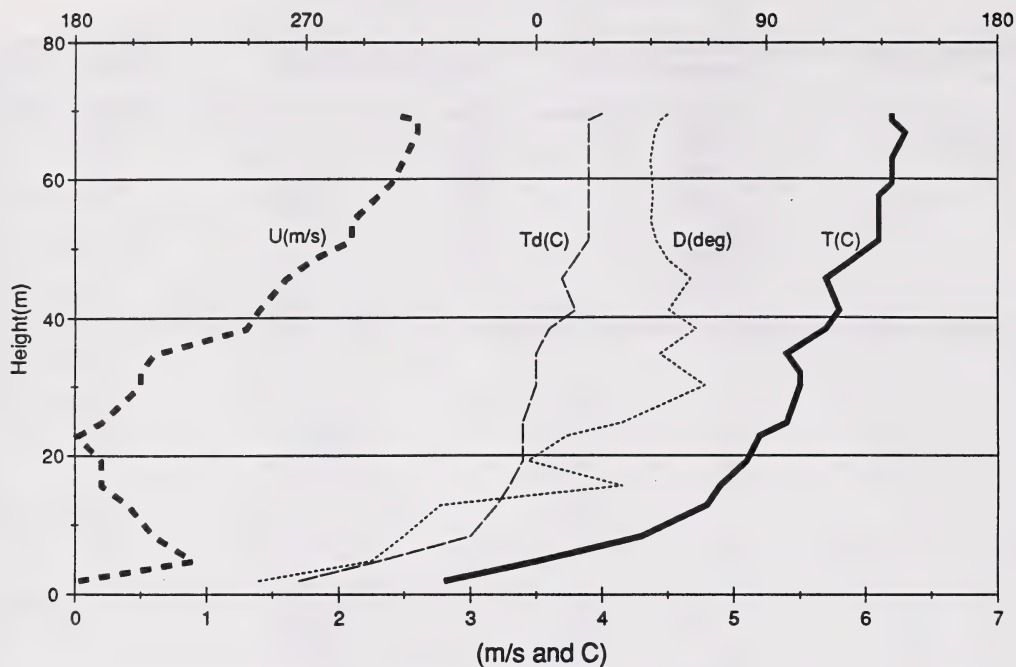
Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T17L03A	N/A		
T17L03D	N/A		
T19L01A	N/A		
T19L01D	N/A		
T19L02A	N/A		
T19L02D	U (m/s)	13	F
	U (m/s)	53	F
	D (deg)	53	P
T20L01A	T (C)	12	F
	Td (C)	12	F
T20L01D	U (m/s)	17	F
	U (m/s)	32	F
	T (C)	18	P
	T (c)	32	F
T20L02A	U (m/s)	35	F
	Td (C)	21	F
	T (C)	20	F
	T (C)	35	P
	D (deg)	17	P
T20L02D	U (m/s)	17	P
	U (m/s)	33	F
	U (m/s)	48	F
	Td (C)	26	P
	T (C)	15	F
	T (C)	25	P
	D (deg)	8	F
	D (deg)	15	P
T20L03A	U (m/s)	17	P
	U (m/s)	31	P
	Td (C)	18	F
	T (C)	9	P
	T (C)	18	F
	D (deg)	16	F

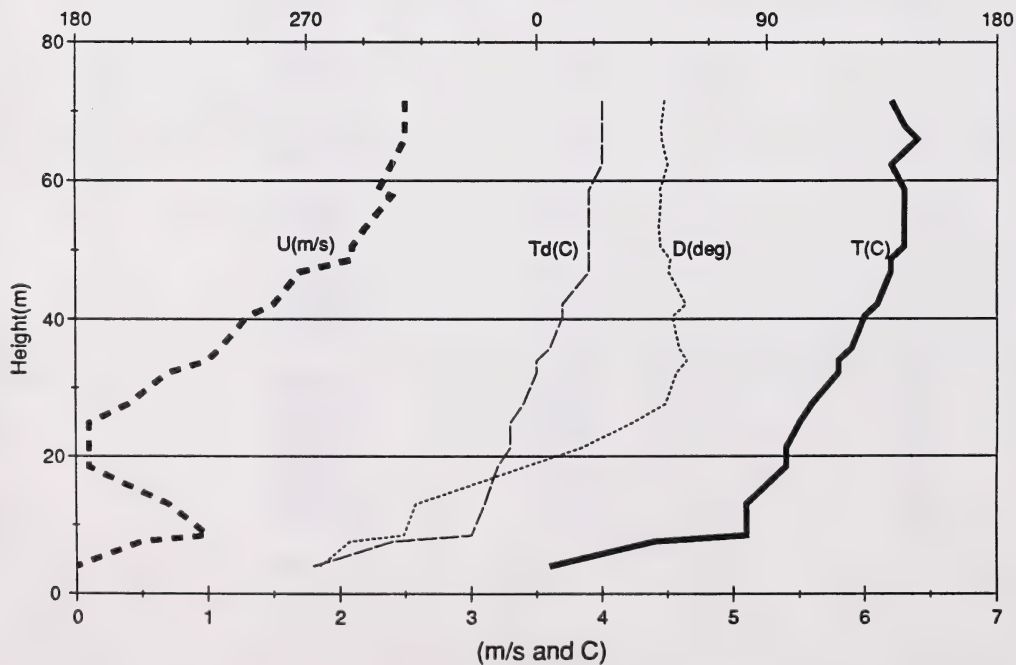
Table D1 (continued)
Tethersonde Profile Discontinuities

Launch	Parameter	Height (m)	Grade
T20L03D	U (m/s)	13	F
	U (m/s)	43	F
	U (m/s)	47	F
	T (C)	13	F
	D (deg)	34	F
	D (deg)	36	F

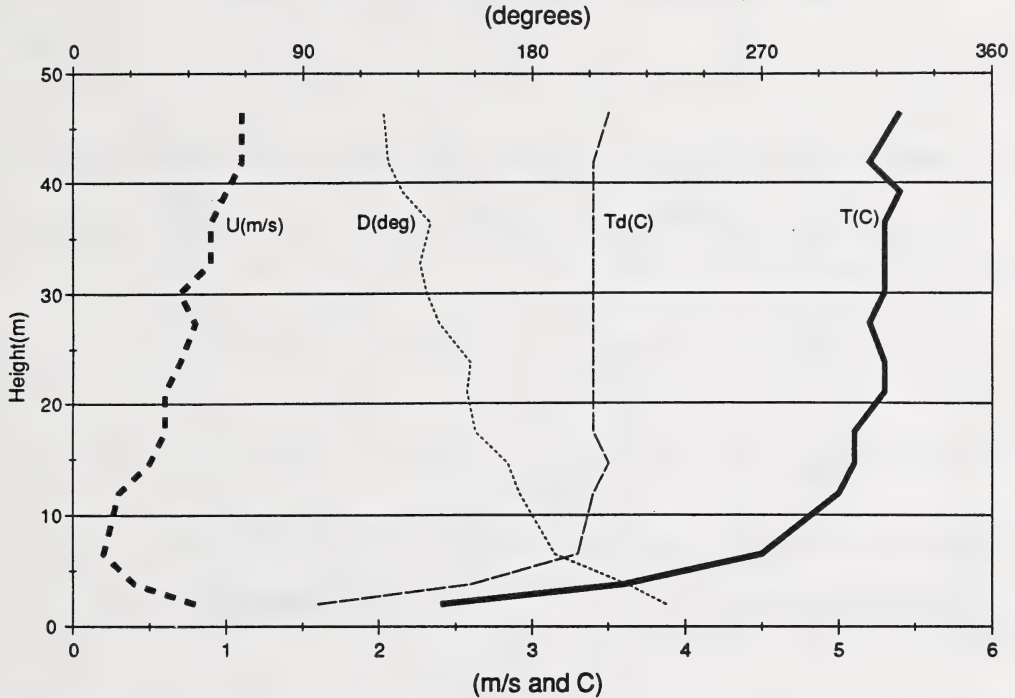
Test 03 Launch 02 20:47 Oct 24 1988 (ascent)
(degrees)



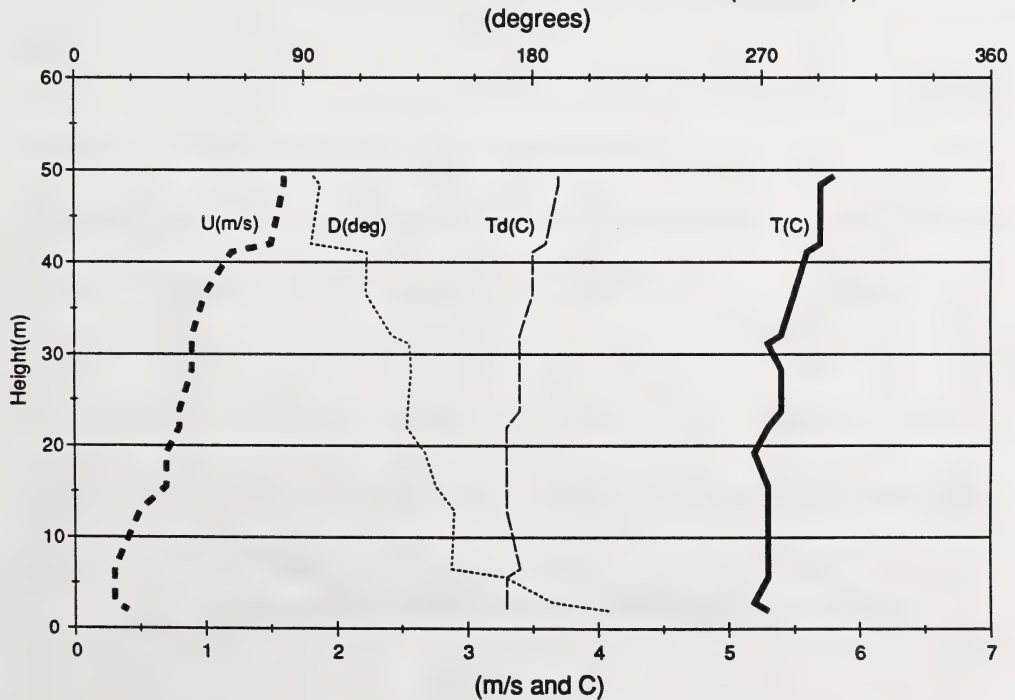
Test 03 Launch 02 20:47 Oct 24 1988 (descent)
(degrees)



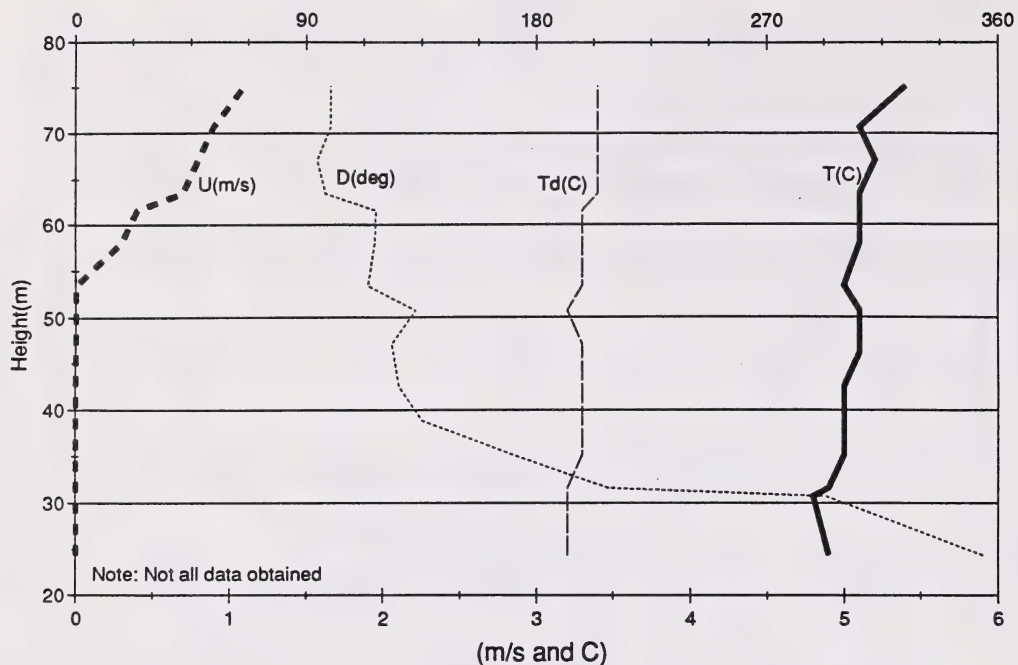
Test 03 Launch 03 21:32 Oct 24 1988 (ascent)



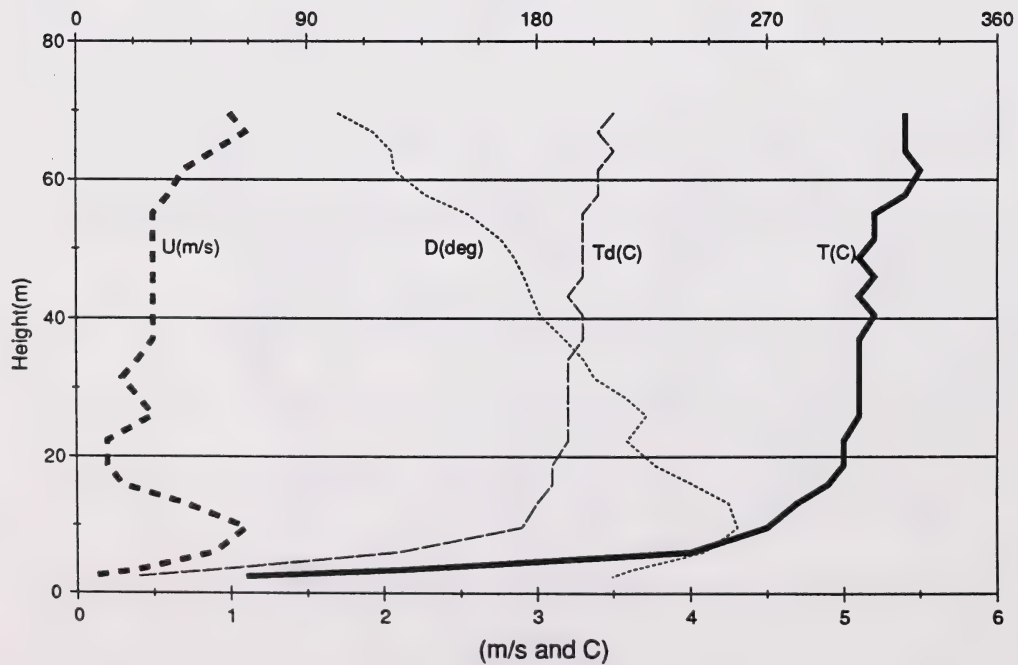
Test 03 Launch 03 21:32 Oct 24 1988 (descent)



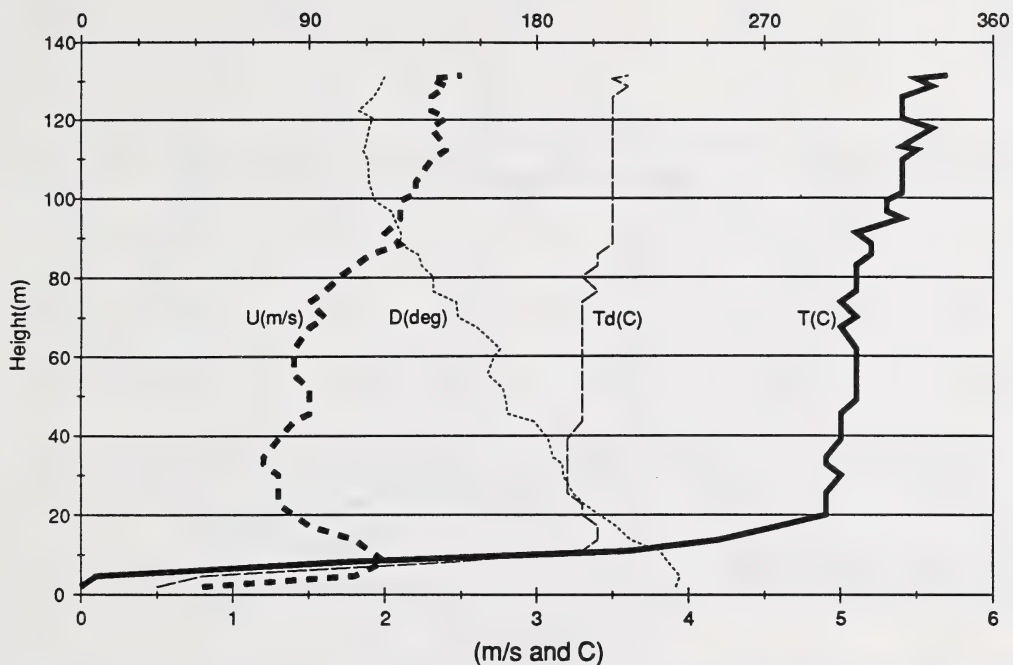
Test 03 Launch 04 22:32 Oct 24 1988 (ascent)
(degrees)



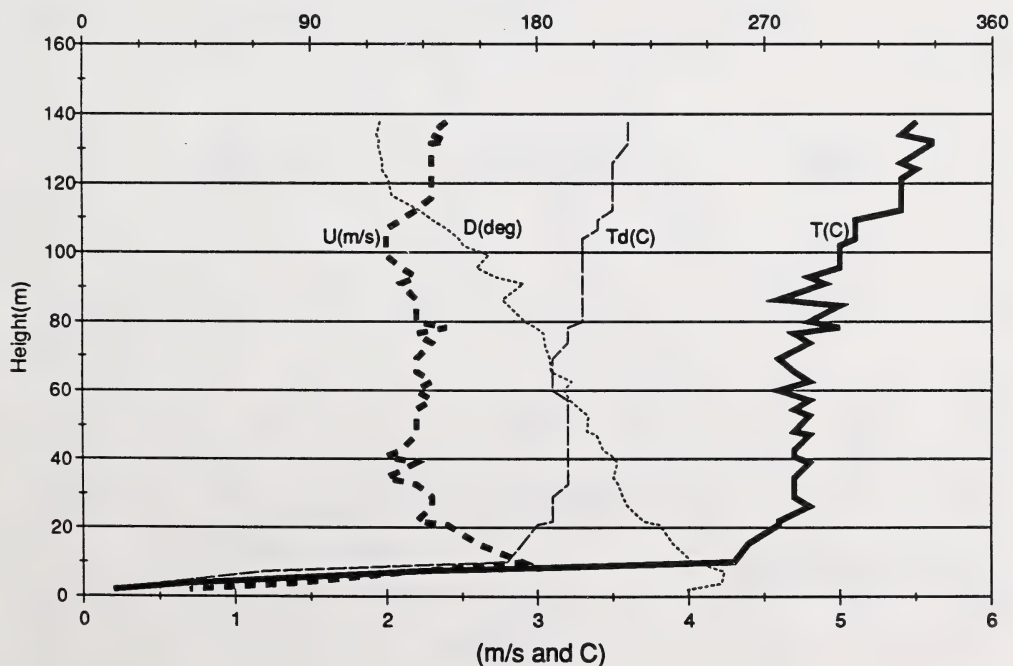
Test 03 Launch 04 22:32 Oct 24 1988 (descent)
(degrees)



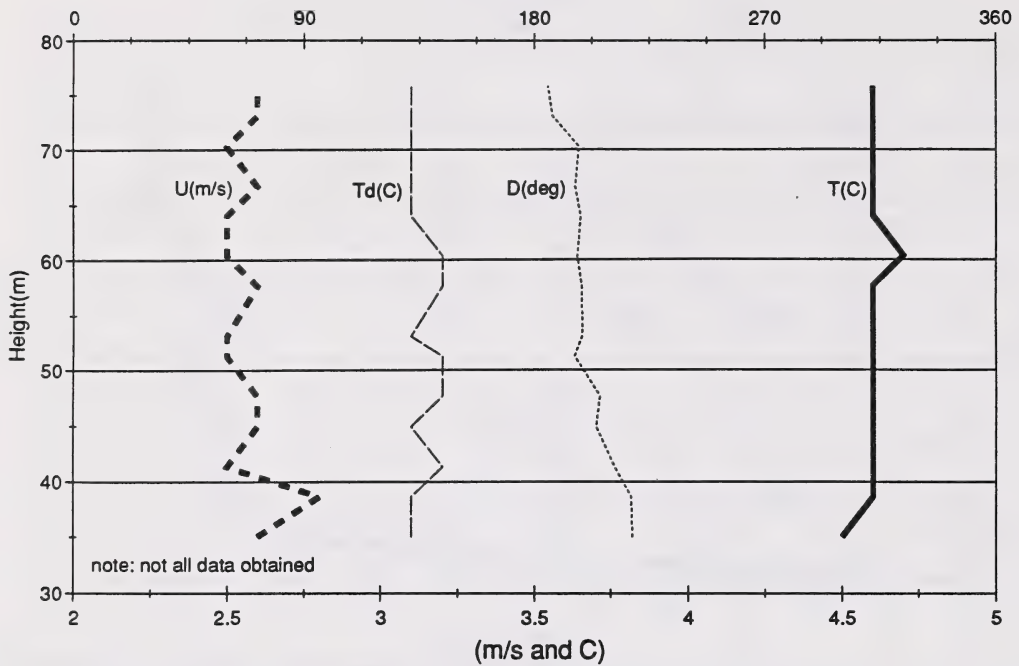
Test 03 Launch 06 23:37 Oct 24 1988 (ascent)
(degrees)



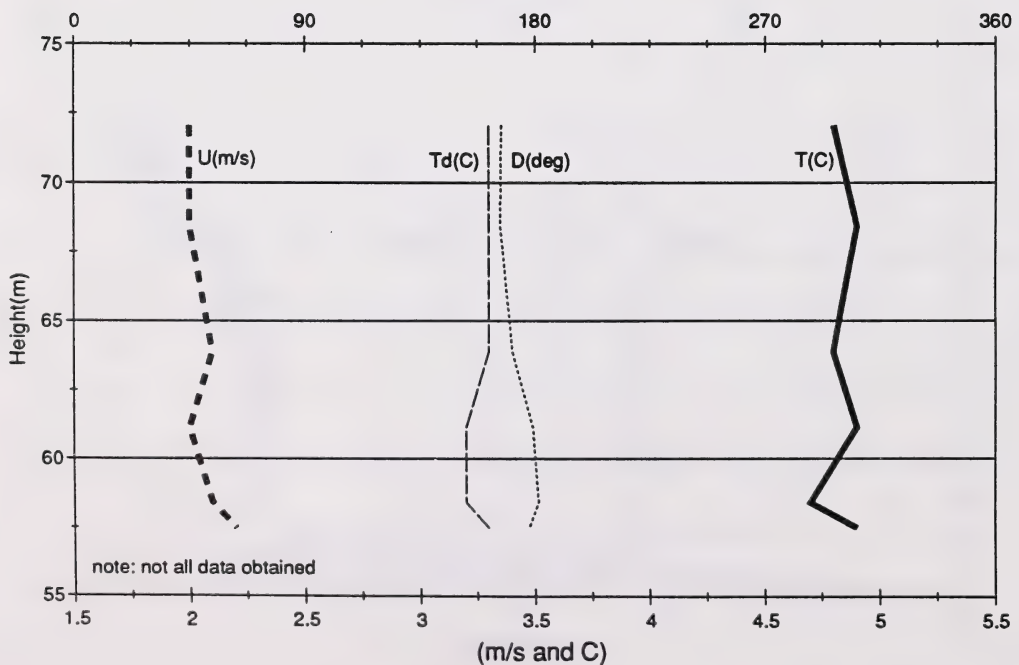
Test 03 Launch 06 23:37 Oct 24 1988 (descent)
(degrees)



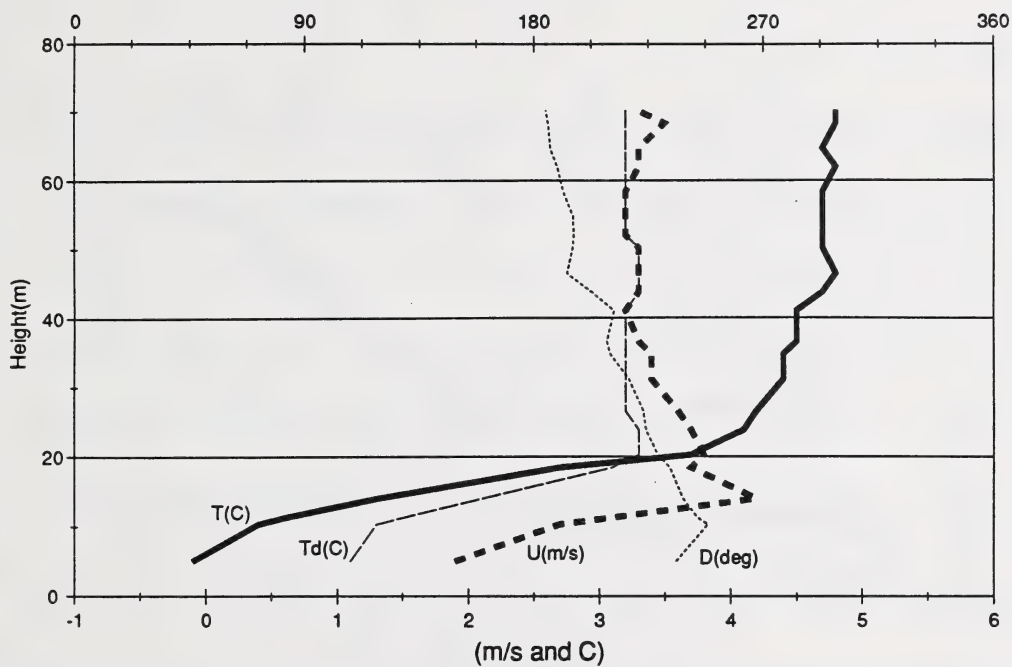
Test 03 Launch 07 00:22 Oct 25 1988 (ascent)
(degrees)



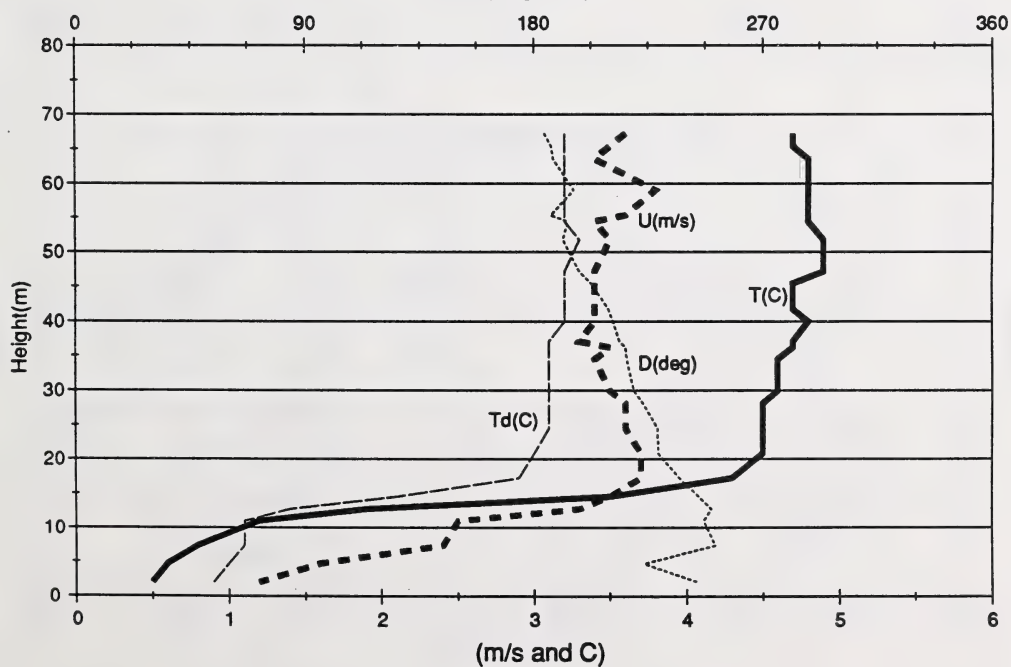
Test 03 Launch 07 00:22 Oct 25 1988 (descent)
(degrees)



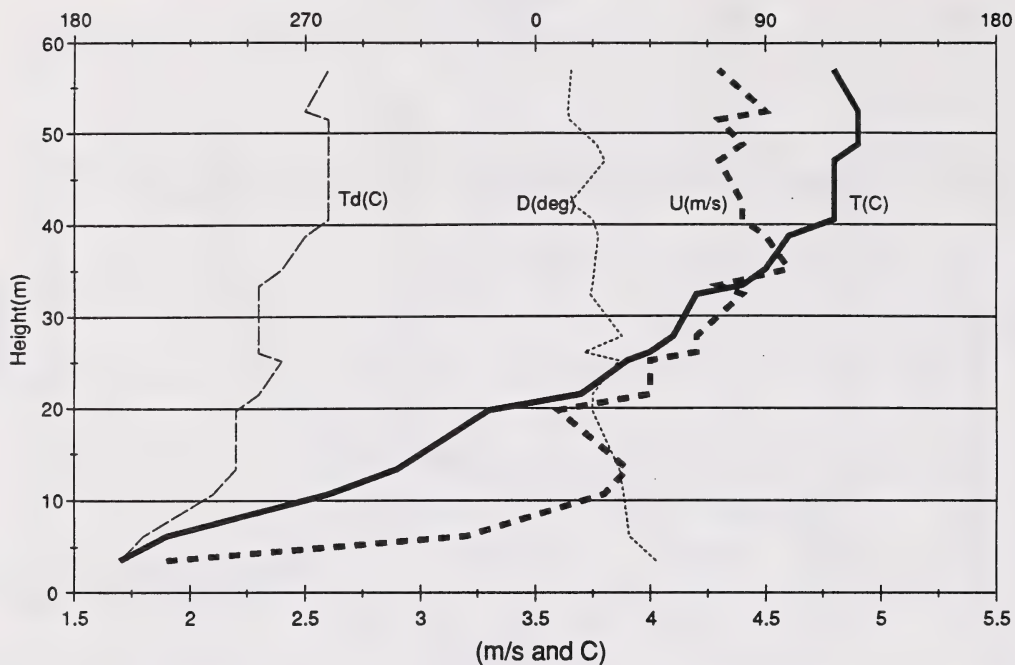
Test 03 Launch 08 01:12 Oct 25 1988 (ascent)
(degrees)



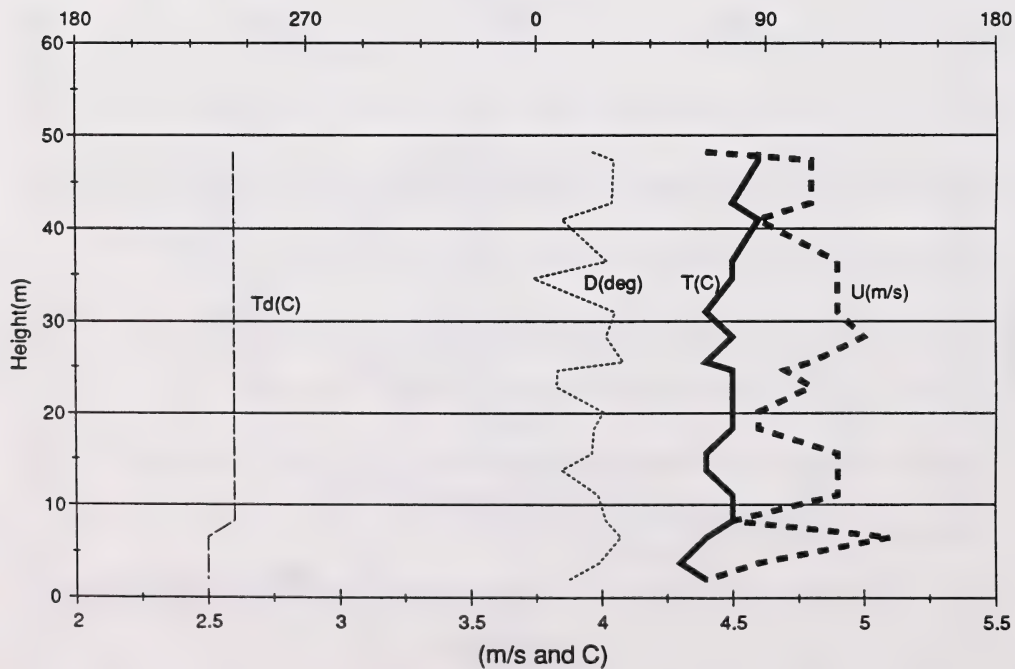
Test 03 Launch 08 01:12 Oct 25 1988 (descent)
(degrees)



Test 03 Launch 09 02:08 Oct 25 1988 (ascent)
(degrees)

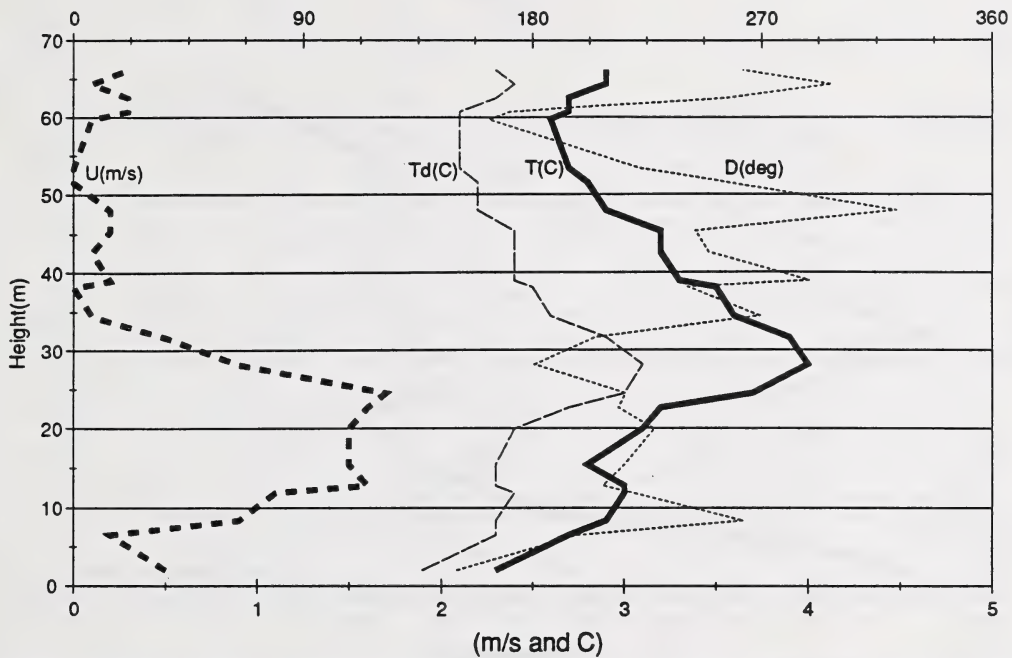


Test 03 Launch 09 02:08 Oct 25 1988 (descent)
(degrees)



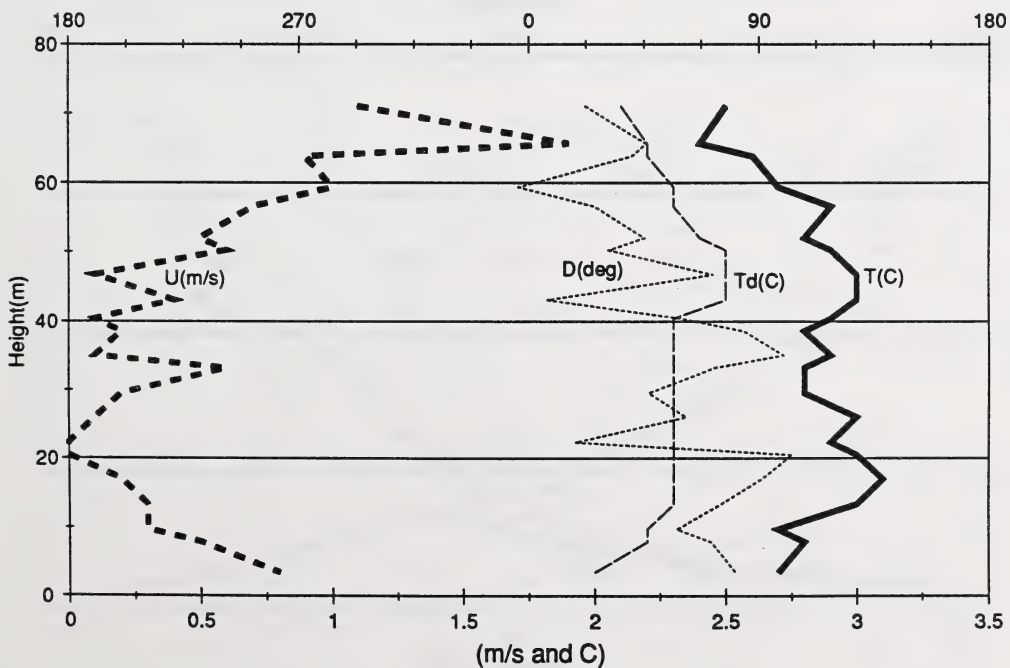
Test 03 Launch 10 03:07 Oct 25 1988 (ascent)

(degrees)

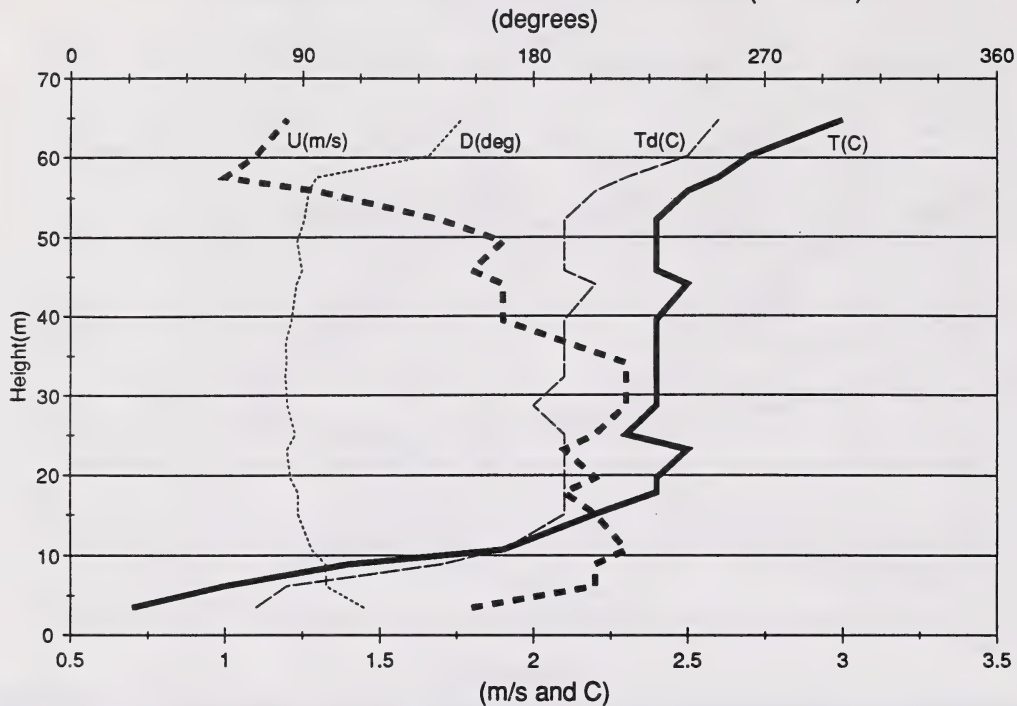


Test 03 Launch 10 03:07 Oct 25 1988 (descent)

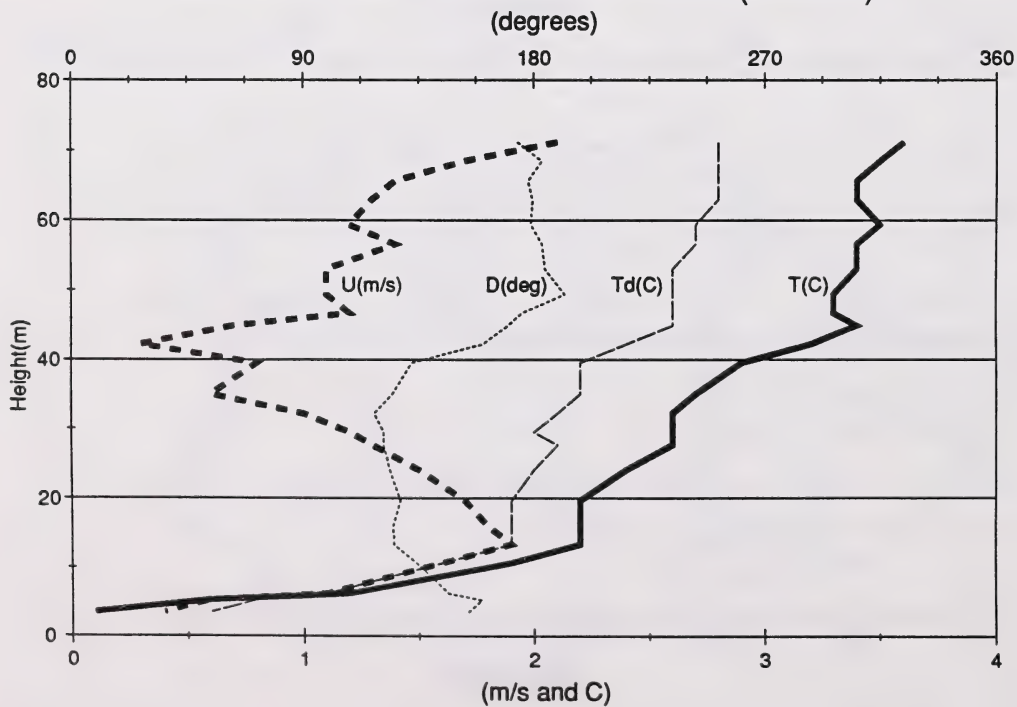
(degrees)



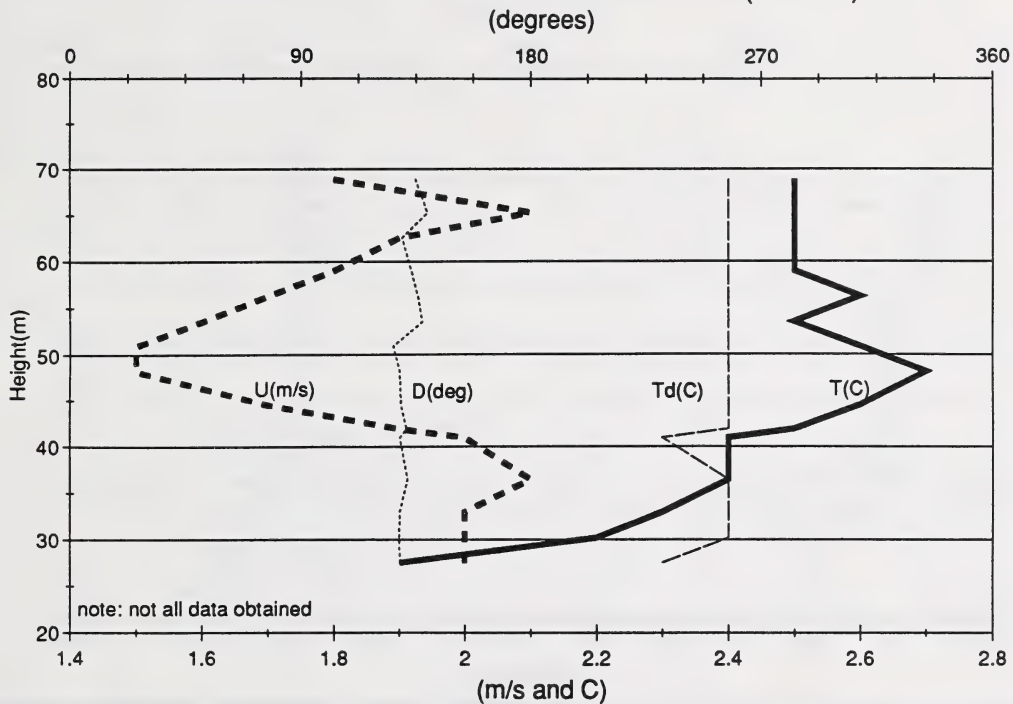
Test 03 Launch 11 03:47 Oct 25 1988 (ascent)



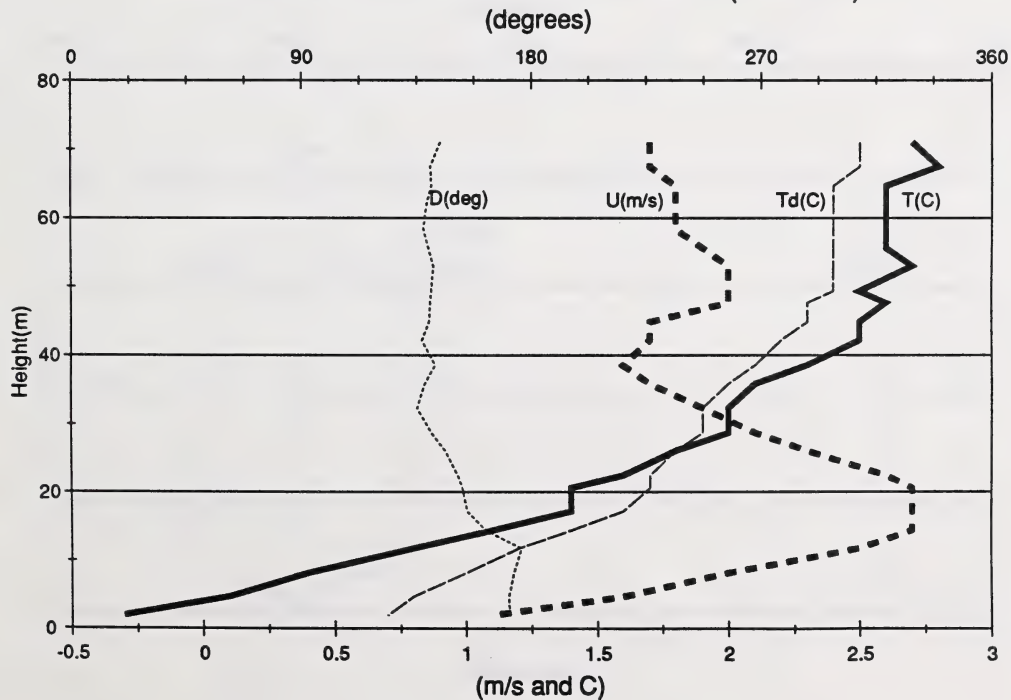
Test 03 Launch 11 03:47 Oct 25 1988 (descent)



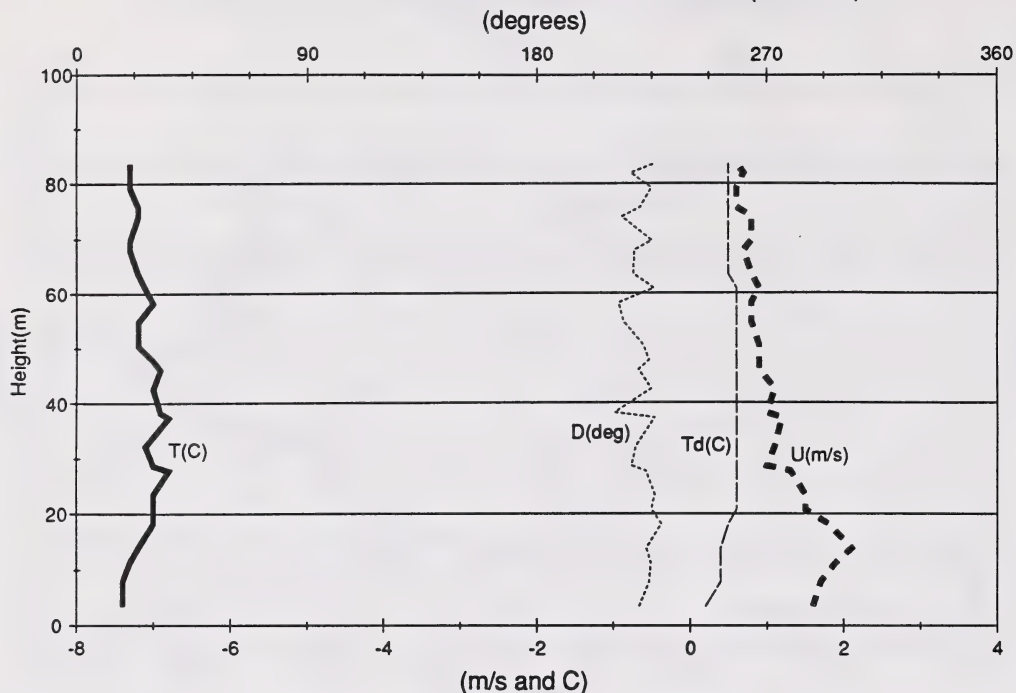
Test 03 Launch 12 04:37 Oct 25 1988 (ascent)



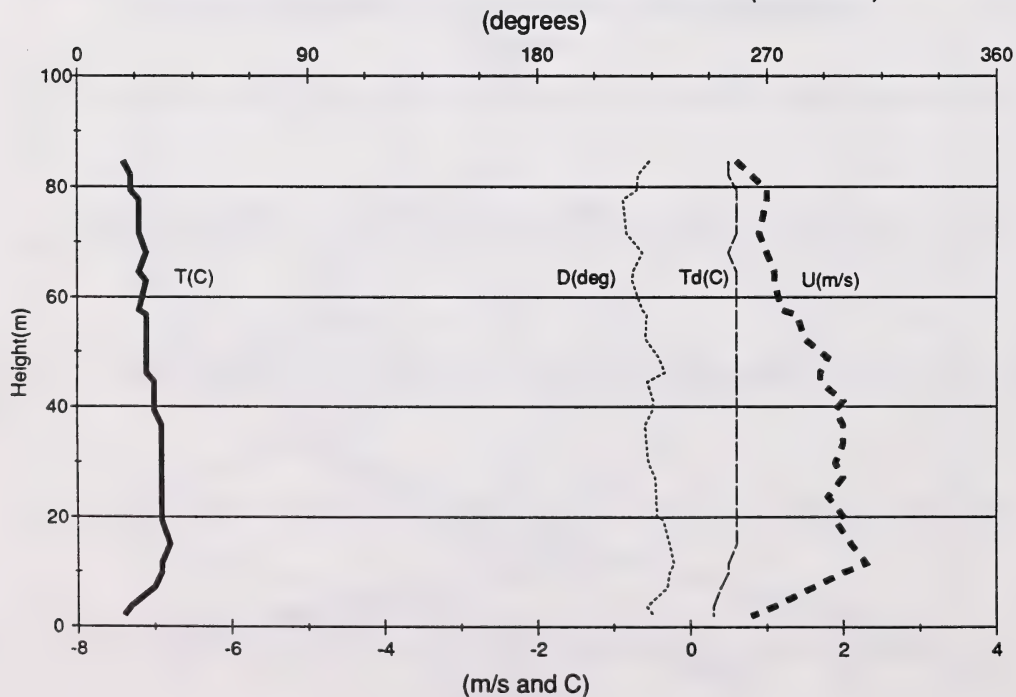
Test 03 Launch 12 04:37 Oct 25 1988 (descent)



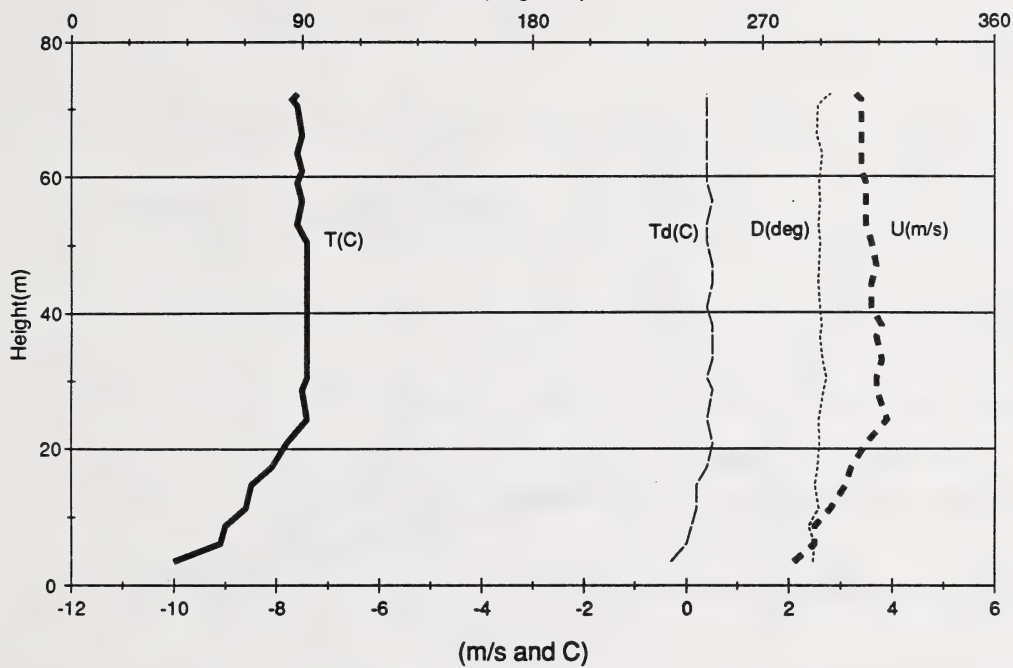
Test 04 Launch 03 22:32 Oct 27 1988 (ascent)



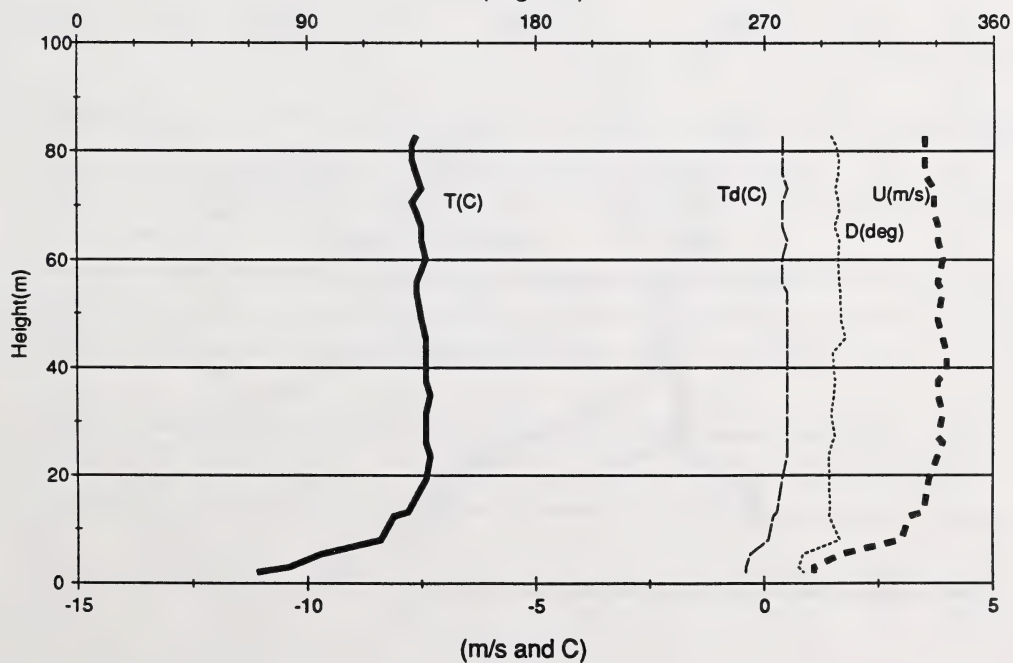
Test 04 Launch 03 22:32 Oct 27 1988 (descent)



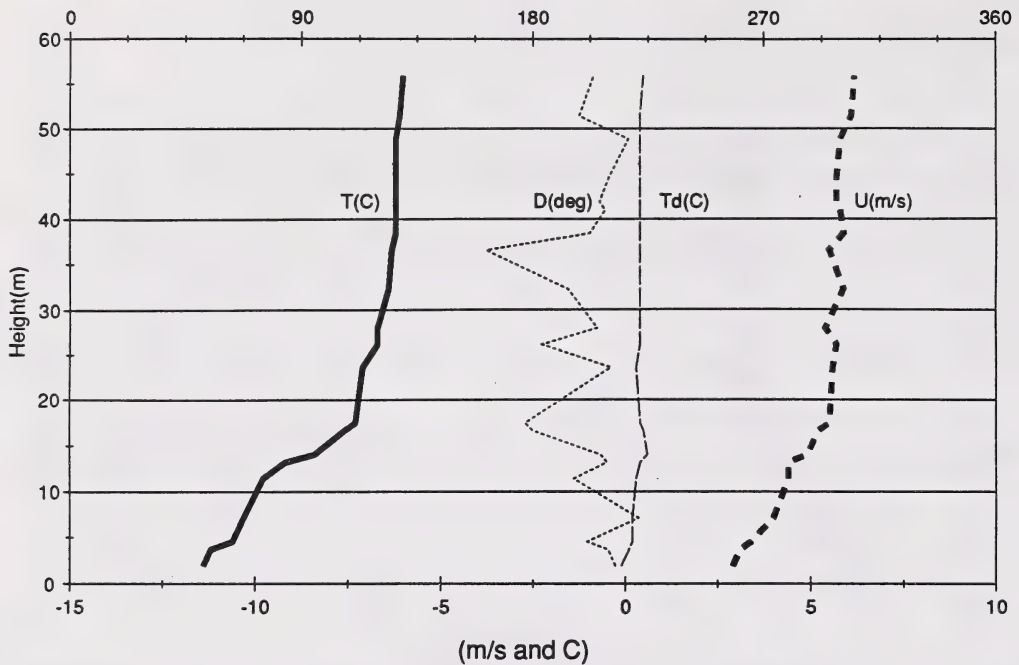
Test 04 Launch 04 00:02 Oct 28 1988 (ascent)
(degrees)



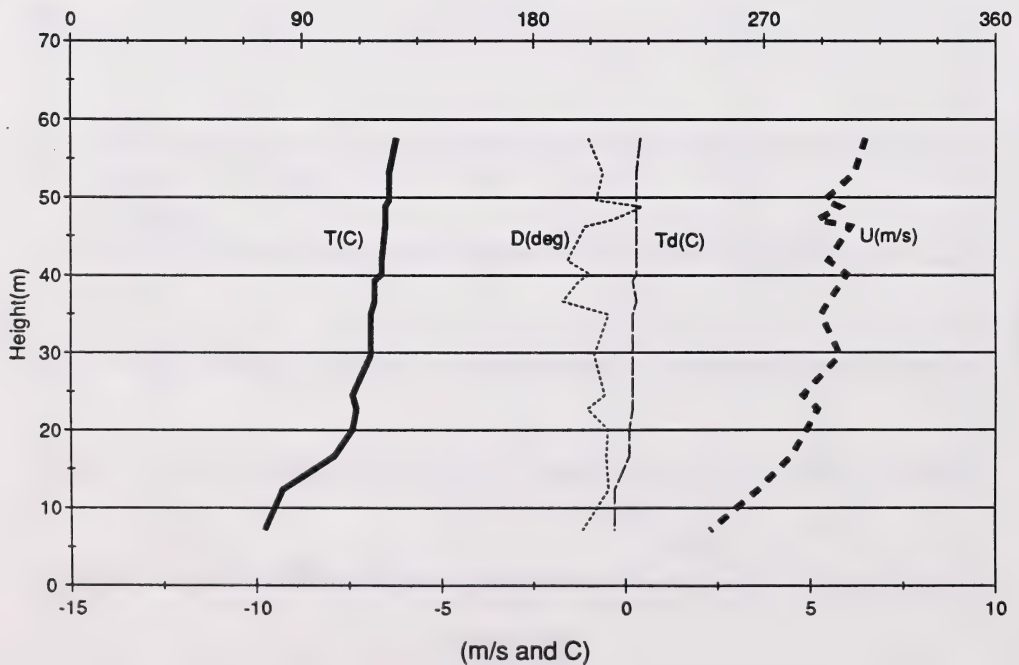
Test 04 Launch 04 00:02 Oct 28 1988 (descent)
(degrees)



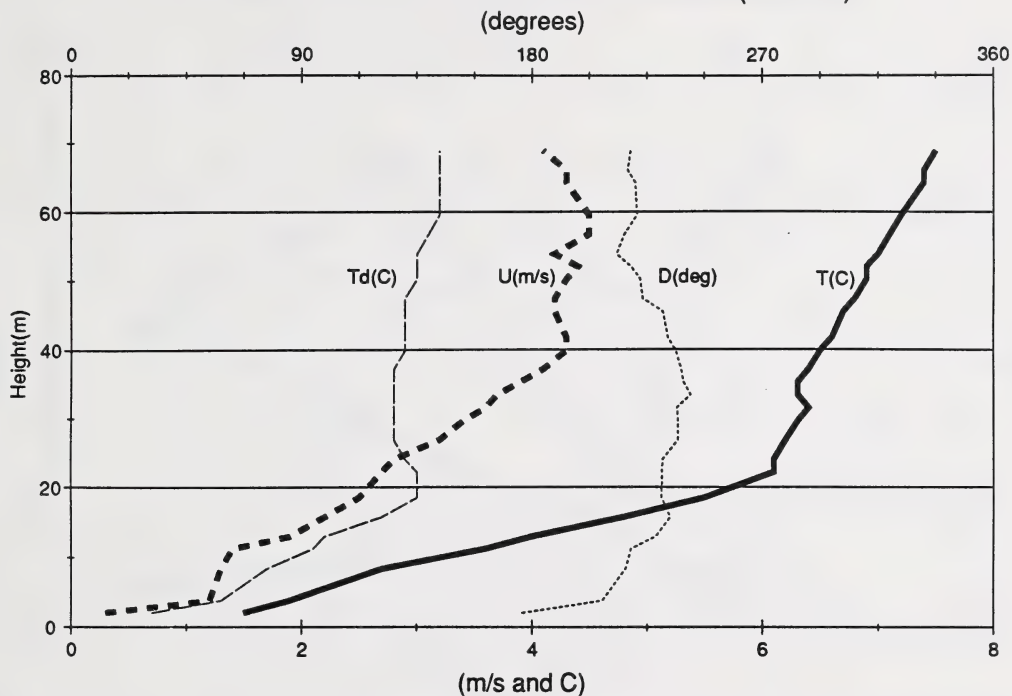
Test 05 Launch 01 19:32 Oct 28 1988 (ascent)
(degrees)



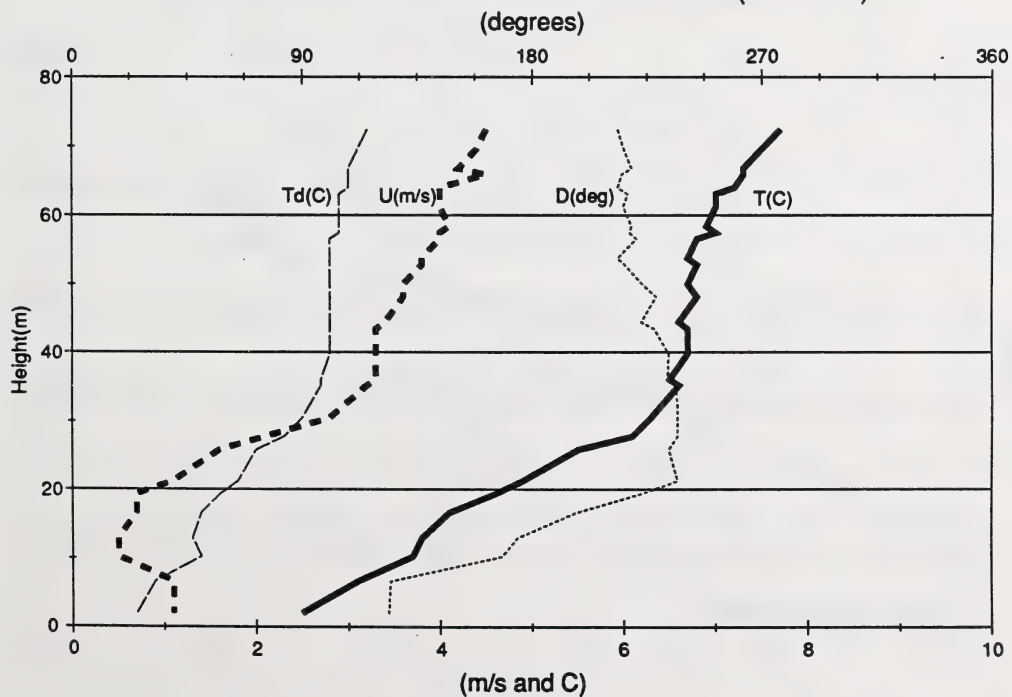
Test 05 Launch 01 19:32 Oct 28 1988 (descent)
(degrees)



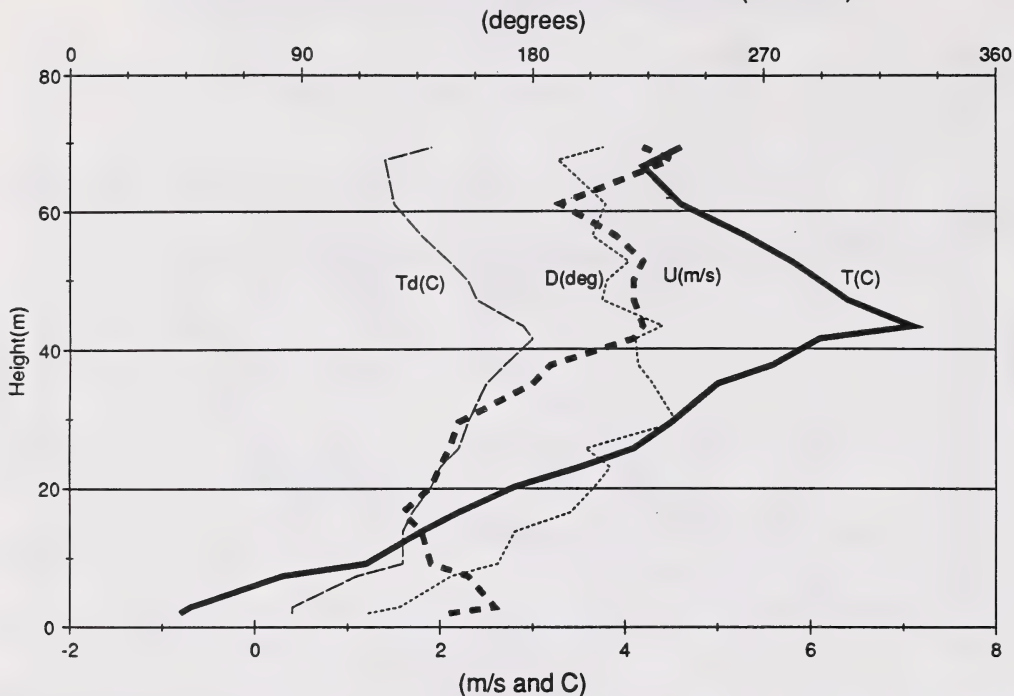
Test 06 Launch 01 20:47 Oct 31 1988 (ascent)



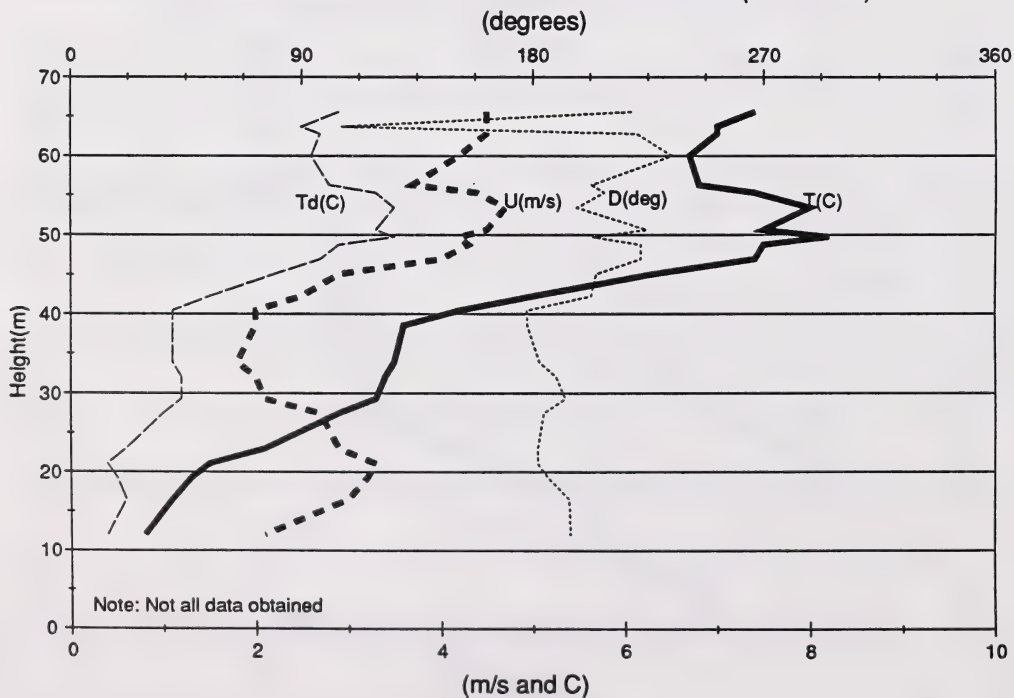
Test 06 Launch 01 20:47 Oct 31 1988 (descent)



Test 06 Launch 02 21:47 Oct 31 1988 (ascent)

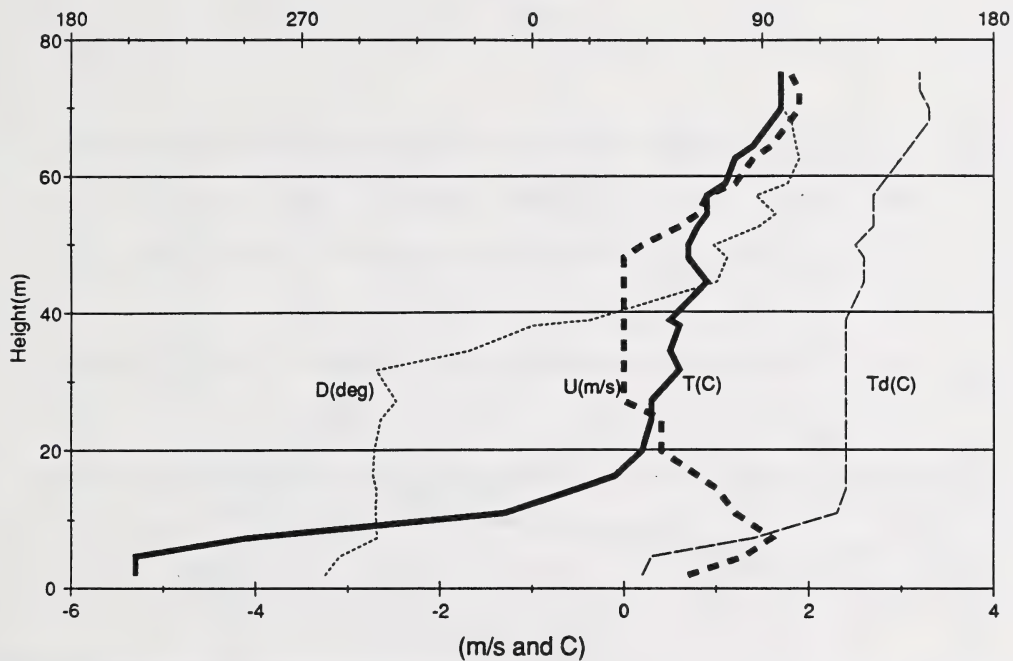


Test 06 Launch 02 21:47 Oct 31 1988 (descent)



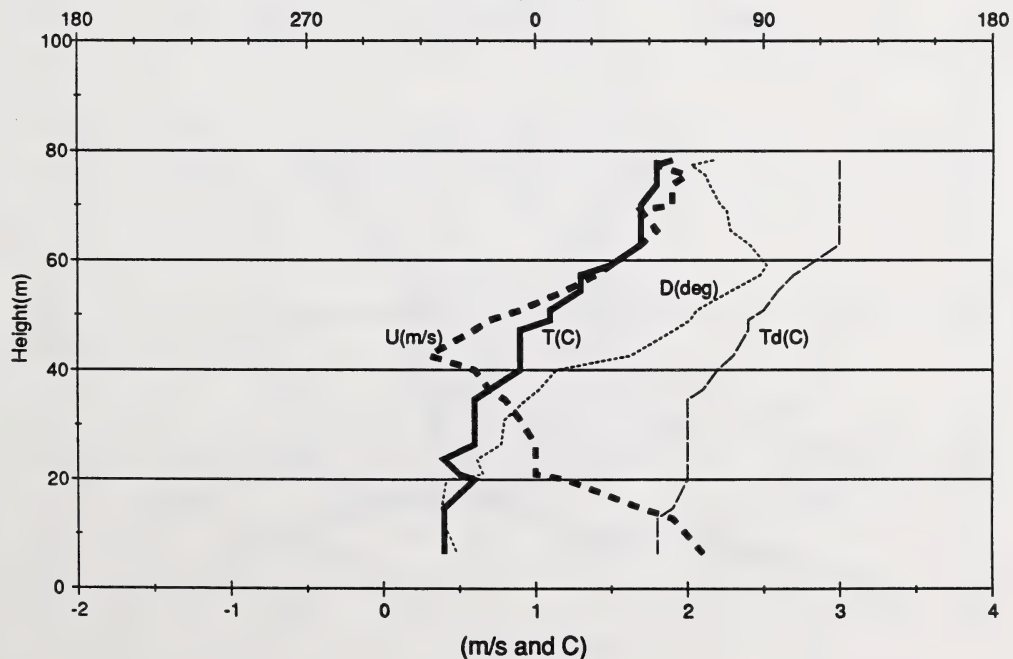
Test 08 Launch 01 18:47 Nov 8 1988 (ascent)

(degrees)



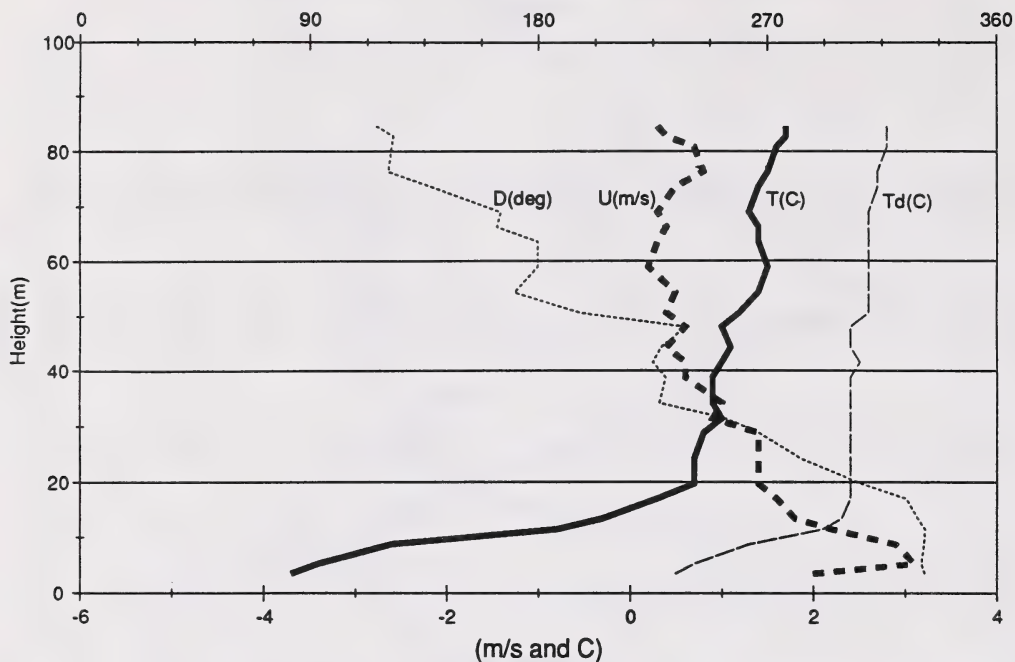
Test 08 Launch 01 18:47 Nov 8 1988 (descent)

(degrees)



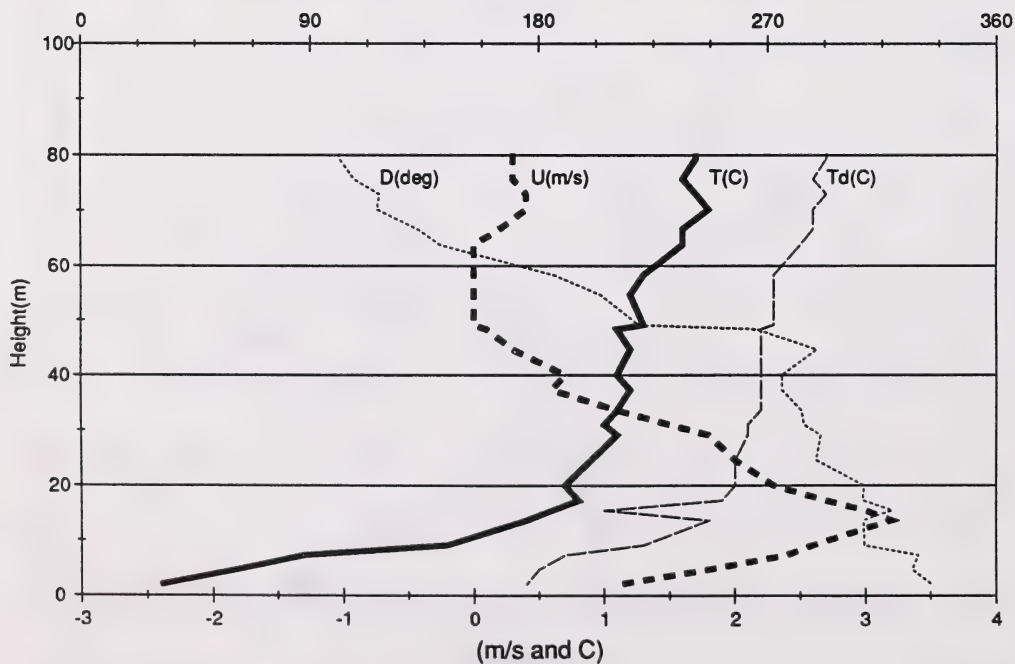
Test 08 Launch 02 19:32 Nov 8 1988 (ascent)

(degrees)

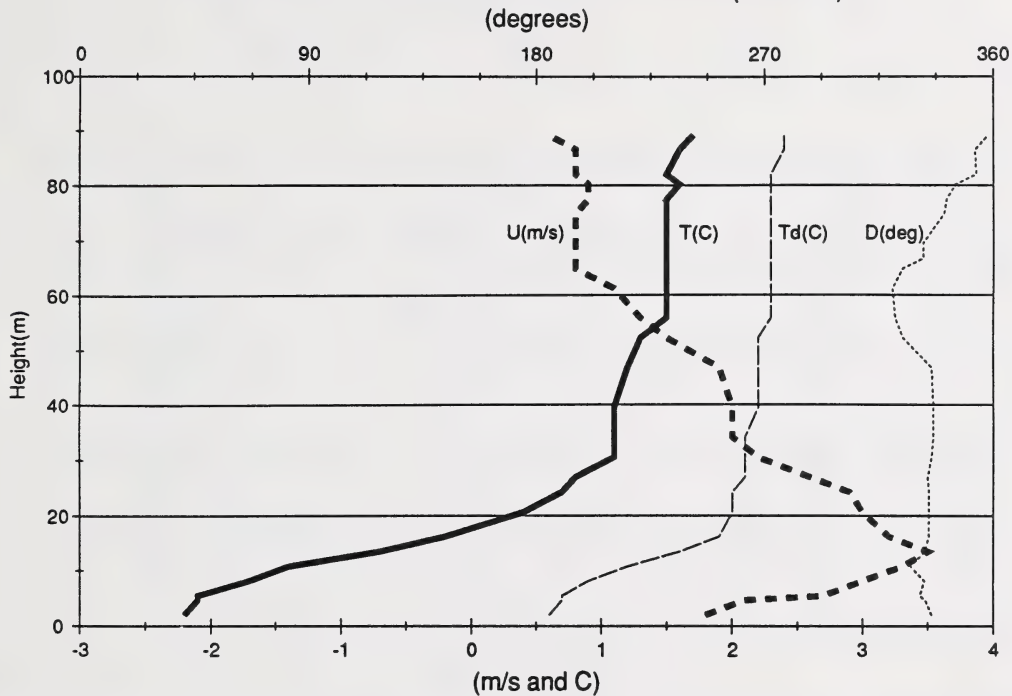


Test 08 Launch 02 19:32 Nov 8 1988 (descent)

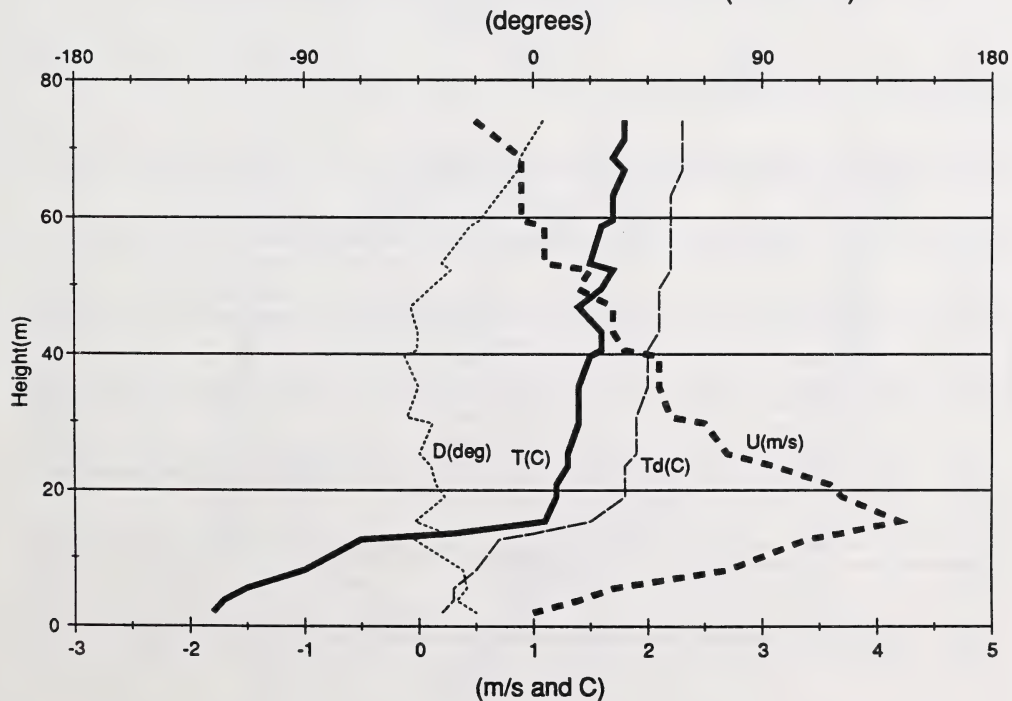
(degrees)



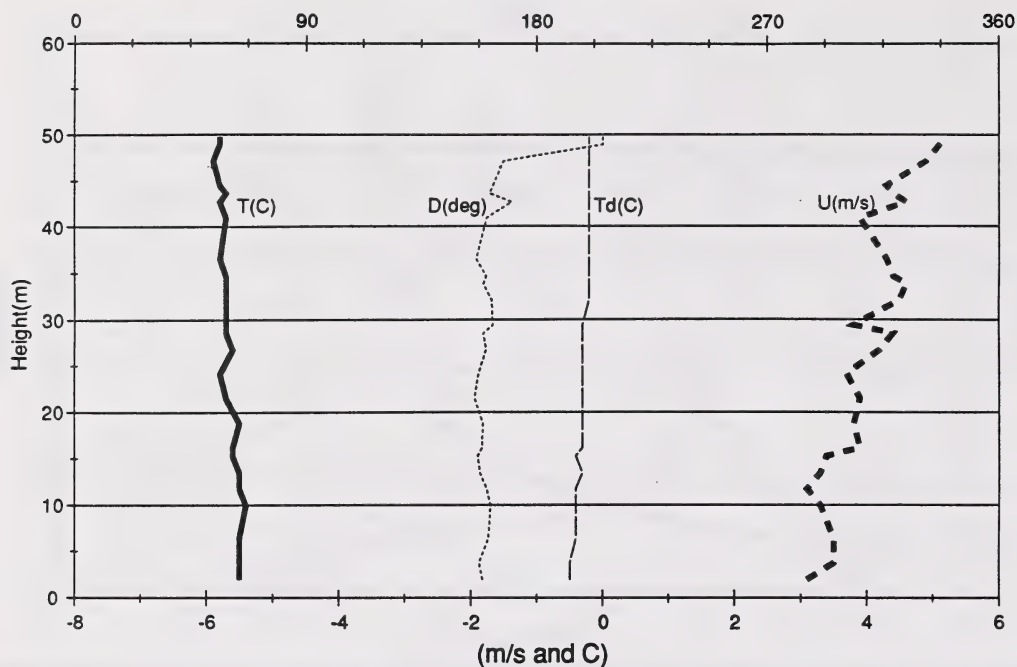
Test 08 Launch 03 20:32 Nov 8 1988 (ascent)



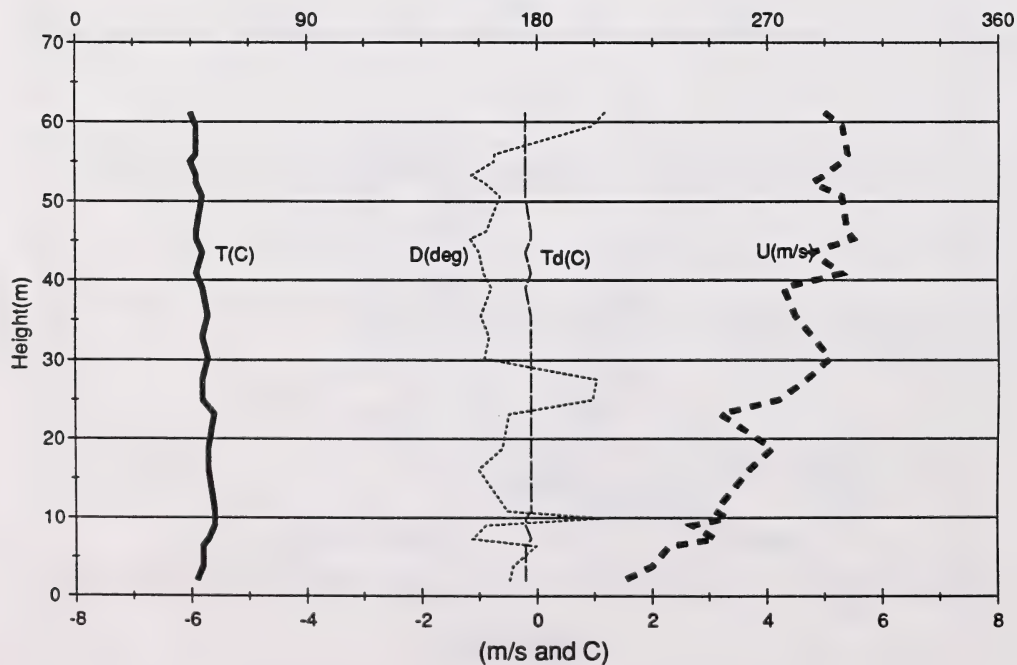
Test 08 Launch 03 20:32 Nov 8 1988 (descent)



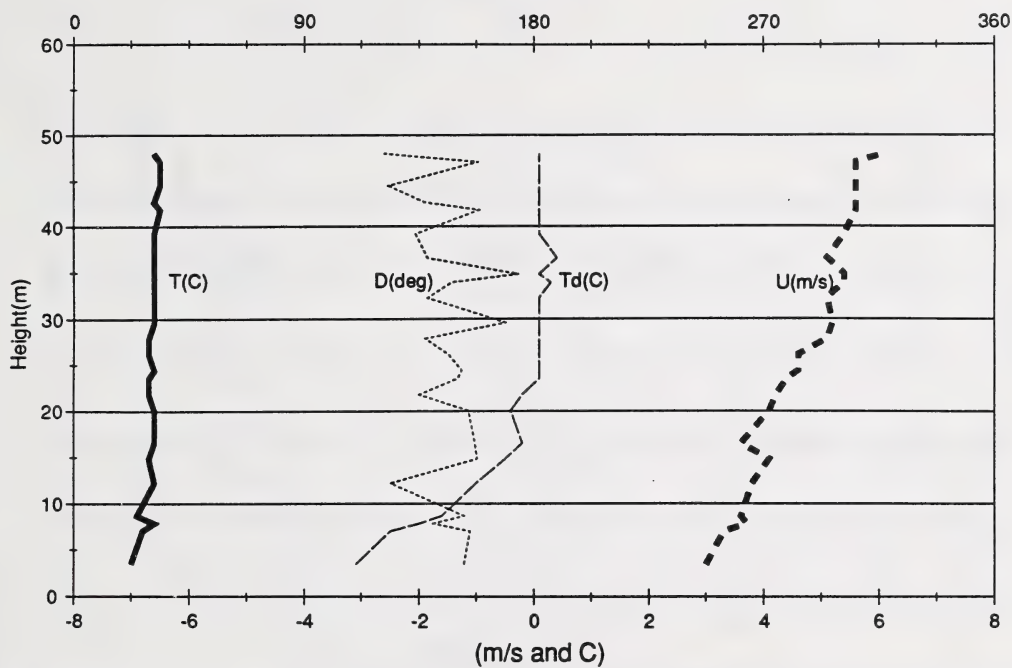
Test 09 Launch 01 17:42 Nov 14 1988 (ascent)
(degrees)



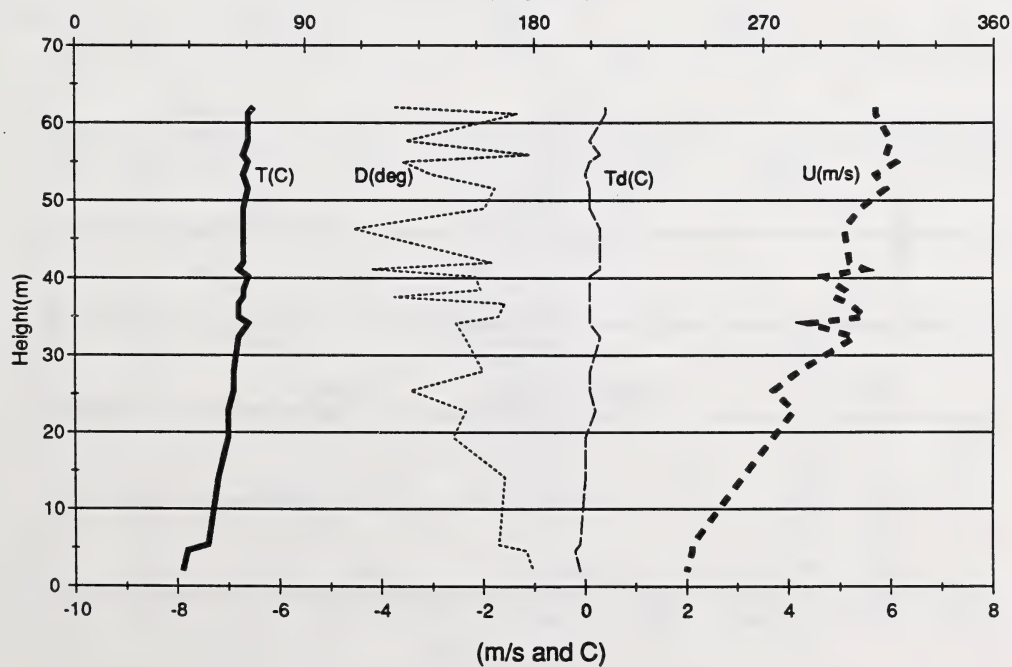
Test 09 Launch 01 17:42 Nov 14 1988 (descent)
(degrees)



Test 09 Launch 02 18:34 Nov 14 1988 (ascent)
(degrees)

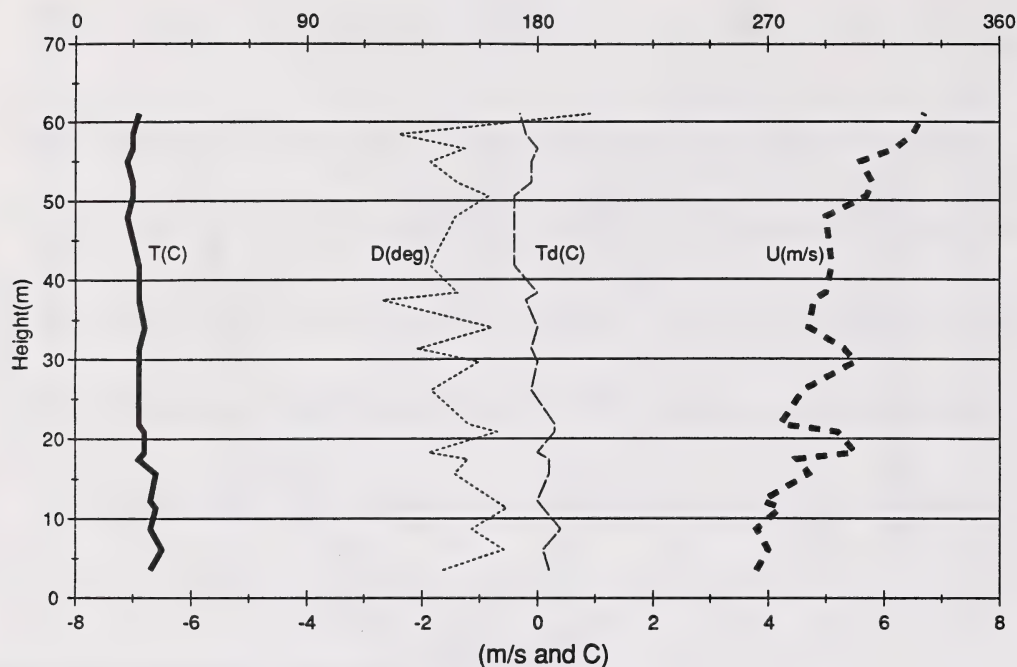


Test 09 Launch 02 18:34 Nov 14 1988 (descent)
(degrees)



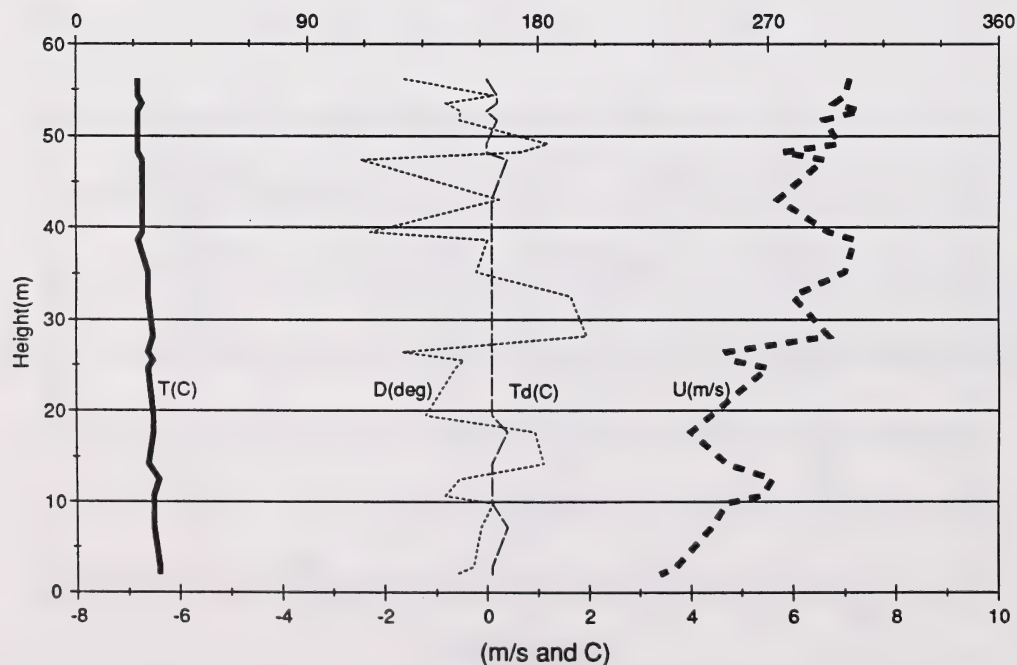
Test 09 Launch 03 19:22 Nov 14 1988 (ascent)

(degrees)



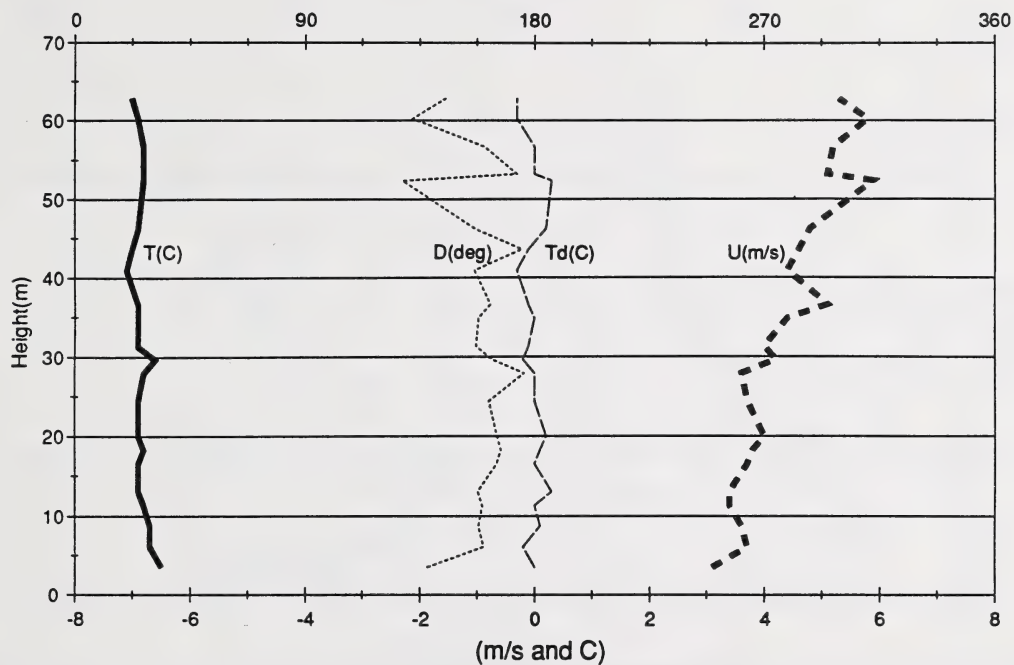
Test 09 Launch 03 19:22 Nov 14 1988 (descent)

(degrees)



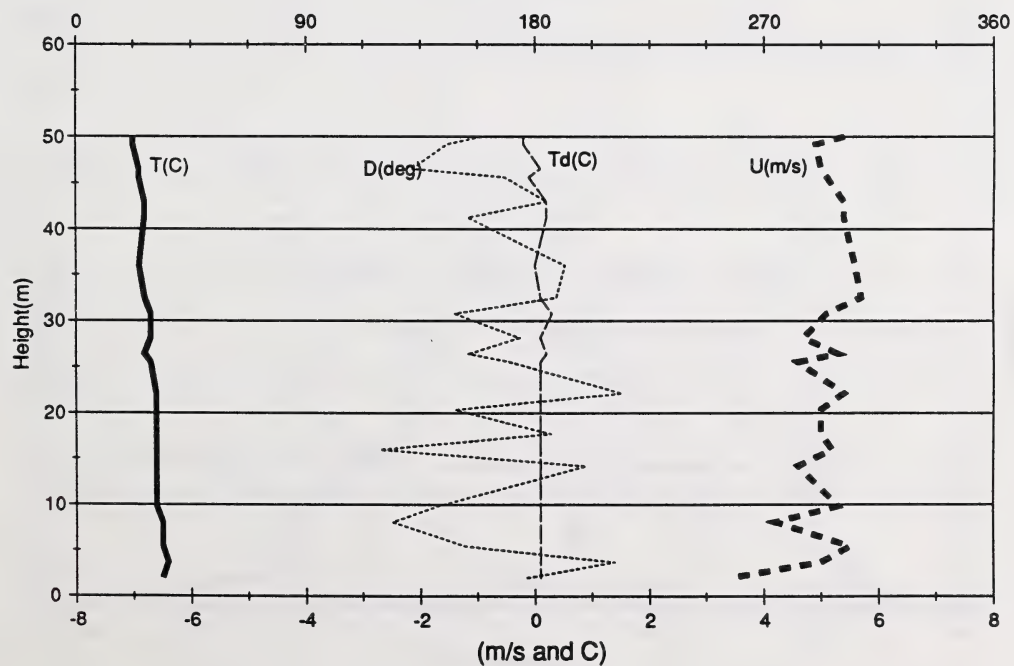
Test 09 Launch 04 20:12 Nov 14 1988 (ascent)

(degrees)

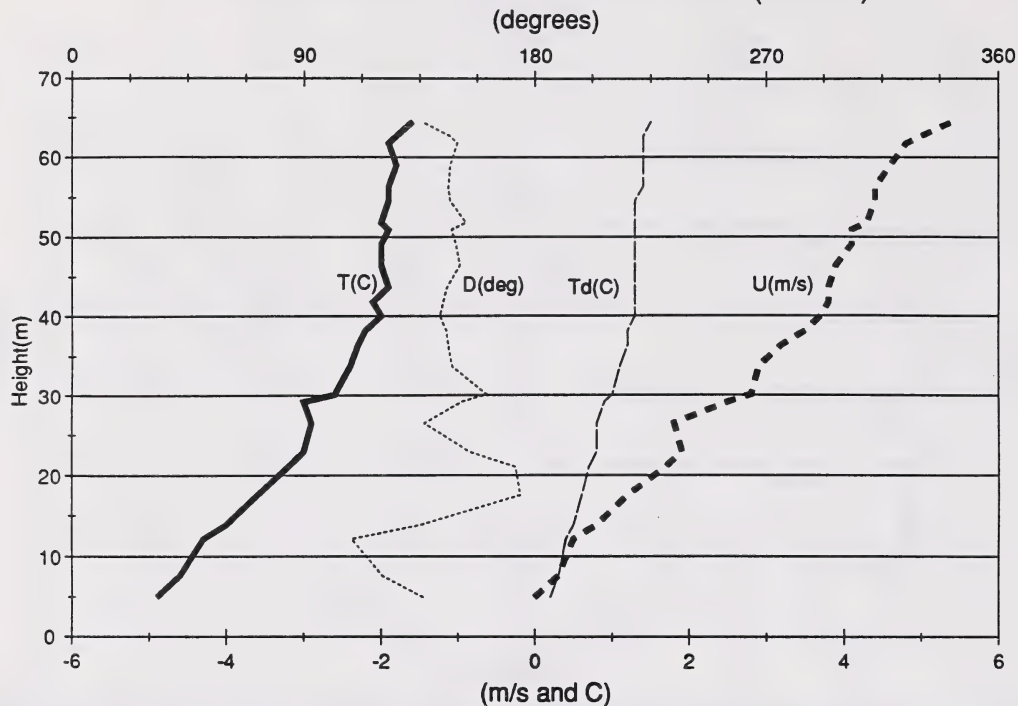


Test 09 Launch 04 20:12 Nov 14 1988 (descent)

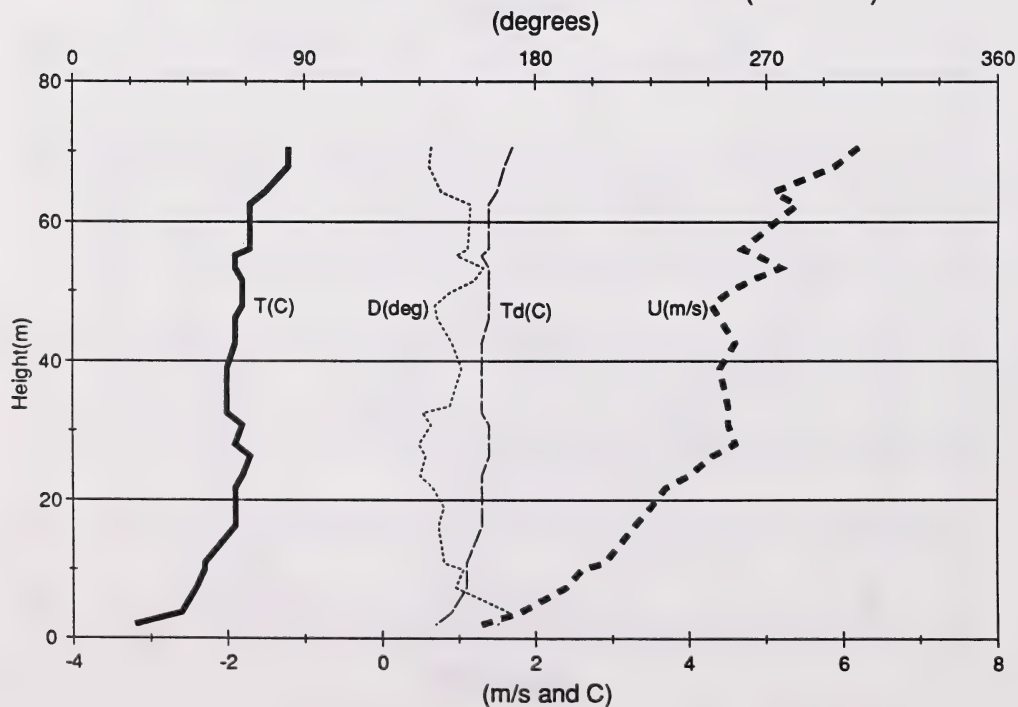
(degrees)



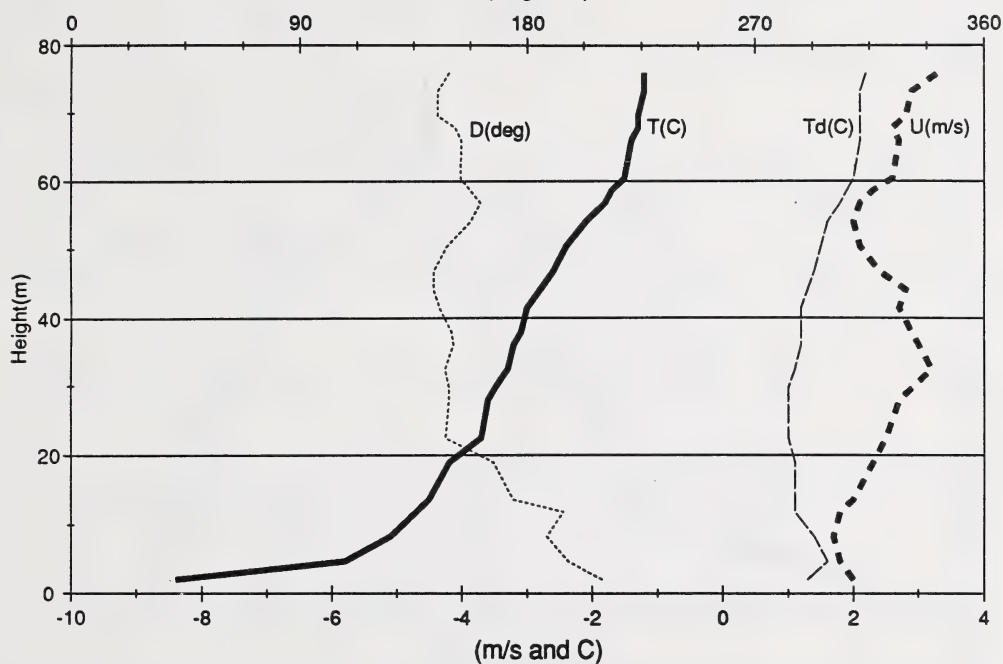
Test 11 Launch 02 18:52 Nov 16 1988 (ascent)



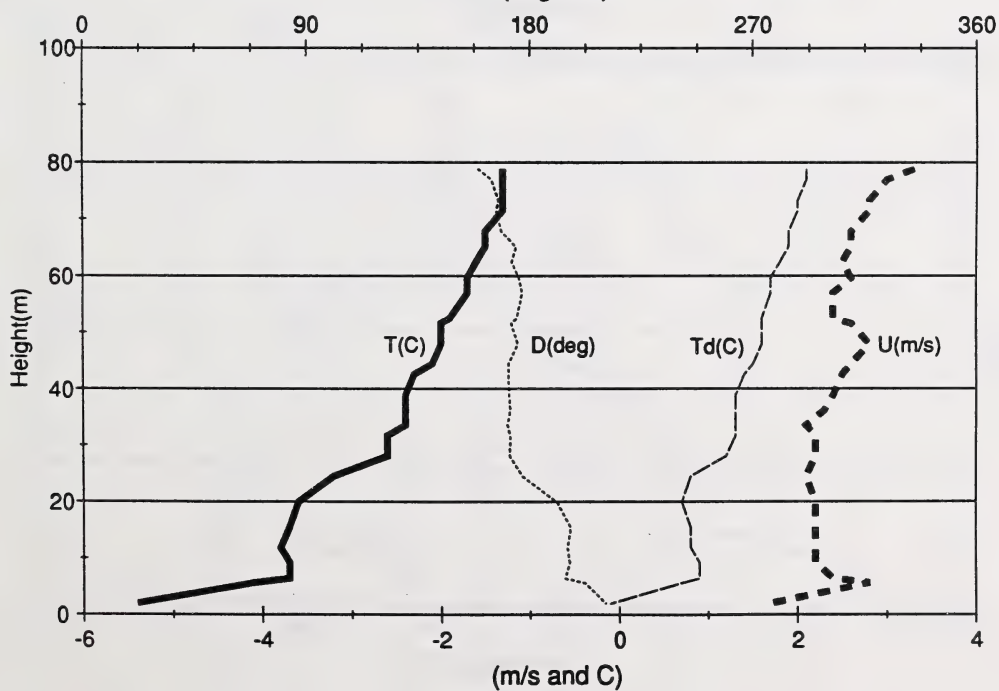
Test 11 Launch 02 18:52 Nov 16 1988 (descent)



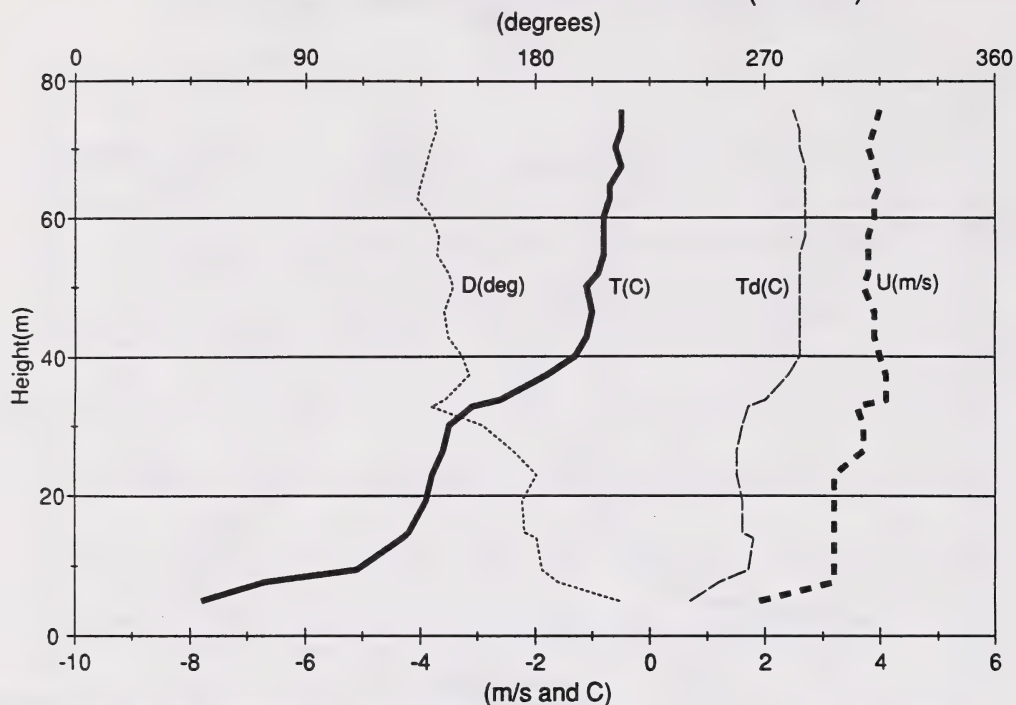
Test 11 Launch 03 21:04 Nov 16 1988 (ascent)



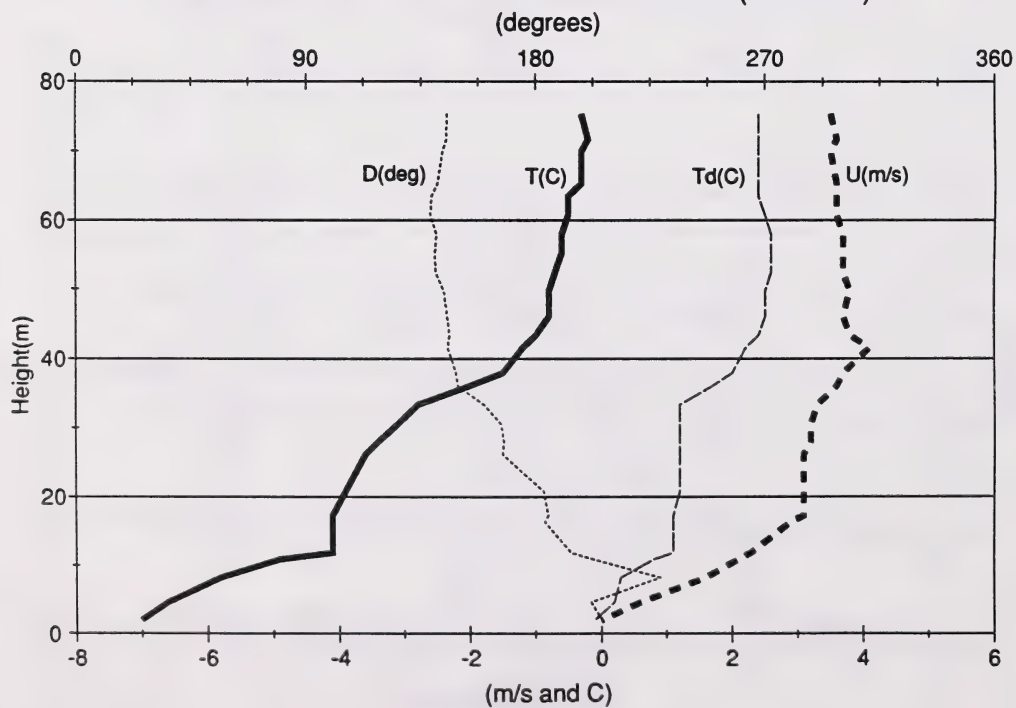
Test 11 Launch 03 21:04 Nov 16 1988 (descent)



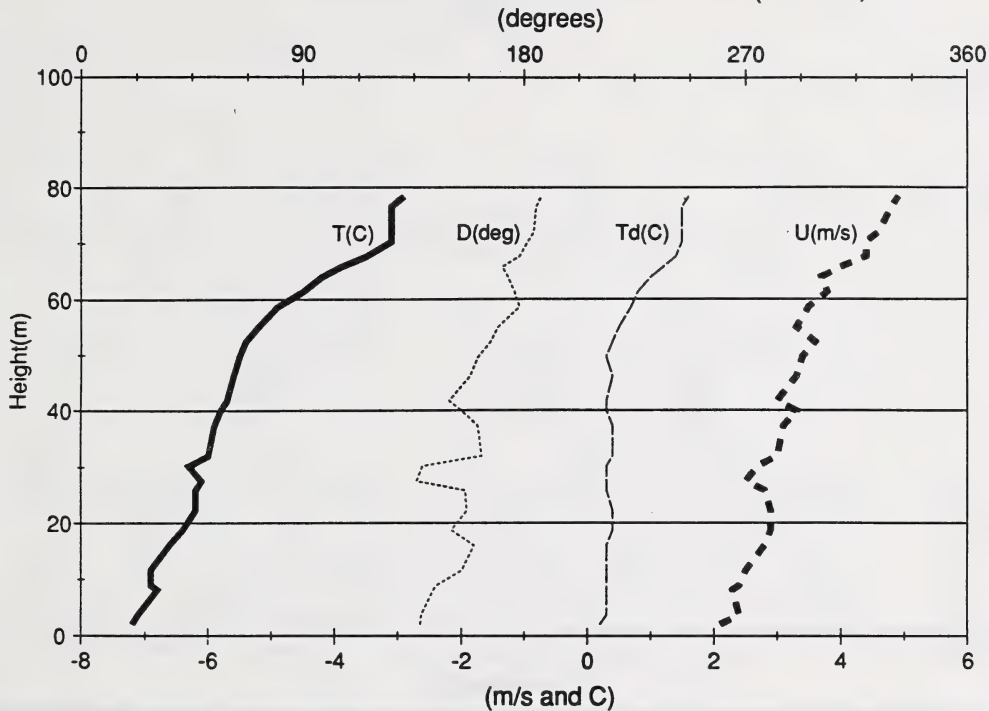
Test 11 Launch 04 23:32 Nov 16 1988 (ascent)



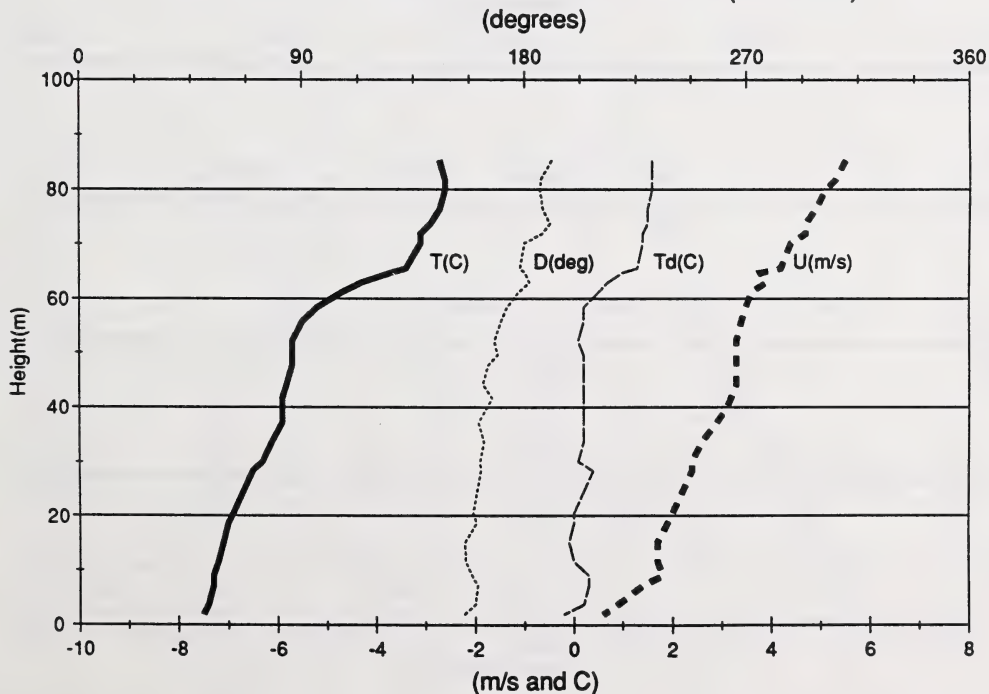
Test 11 Launch 04 23:32 Nov 16 1988 (descent)



Test 12 Launch 02 20:57 Nov 18 1988 (ascent)

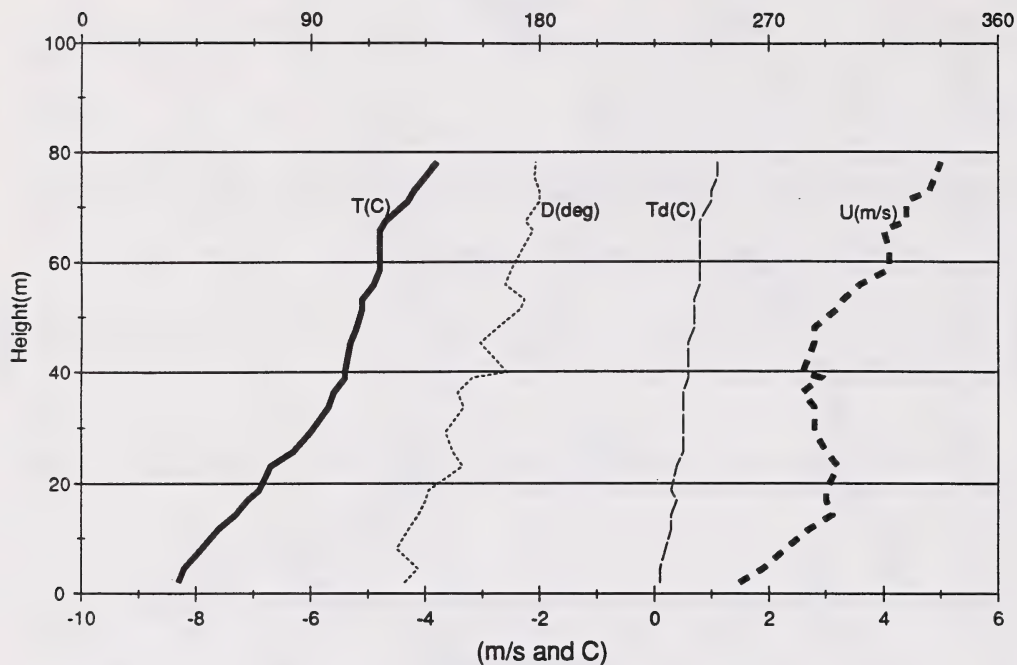


Test 12 Launch 02 20:57 Nov 18 1988 (descent)



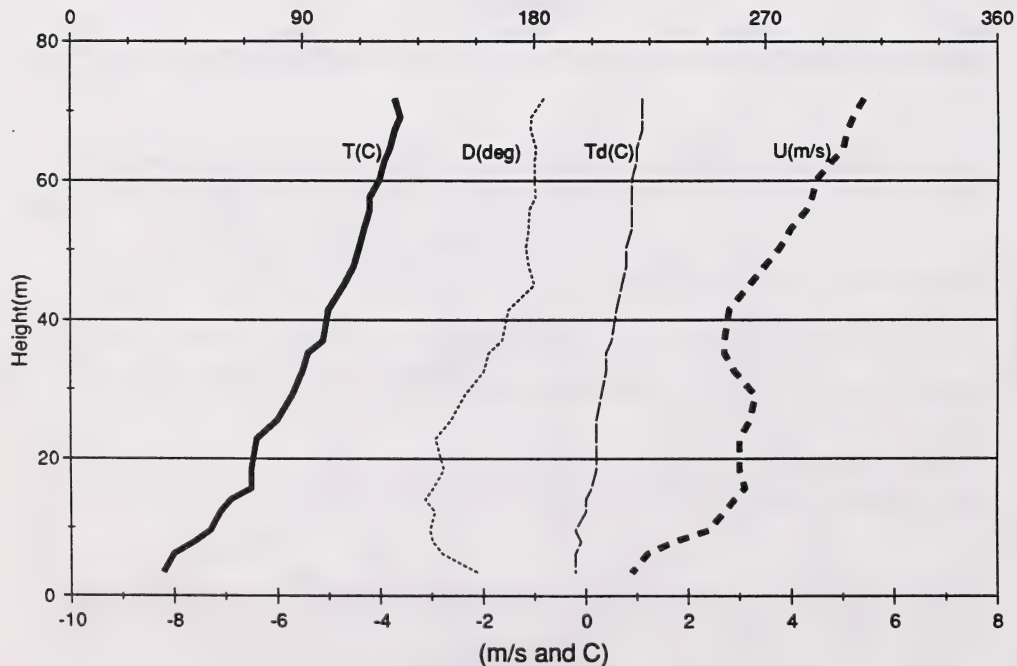
Test 12 Launch 03 22:02 Nov 18 1988 (ascent)

(degrees)

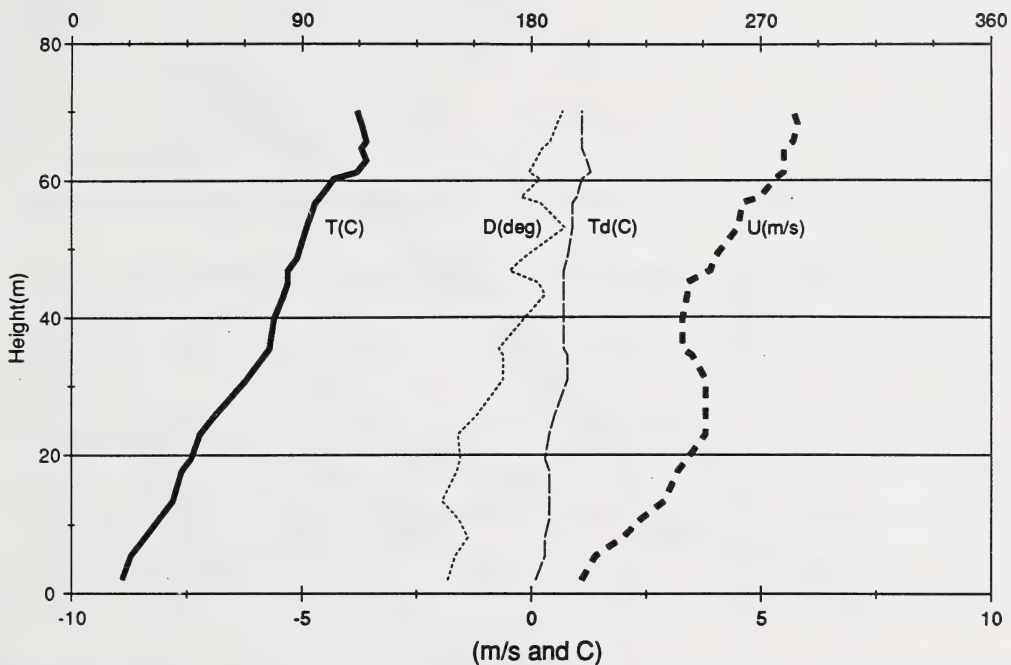


Test 12 Launch 03 22:02 Nov 18 1988 (descent)

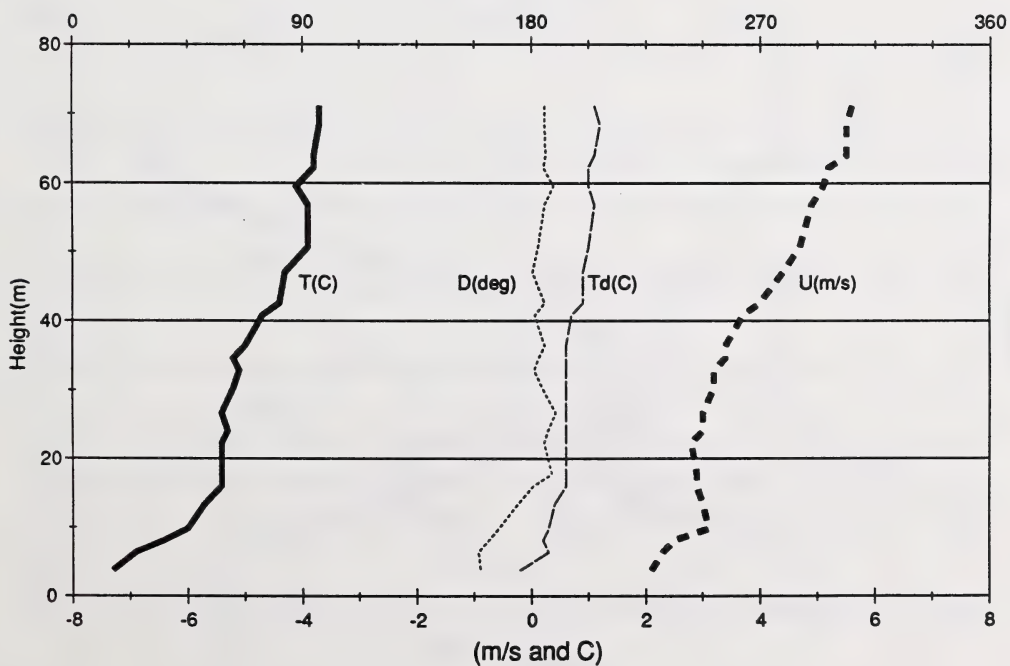
(degrees)



Test 12 Launch 04 23:02 Nov 18 1988 (ascent)
(degrees)

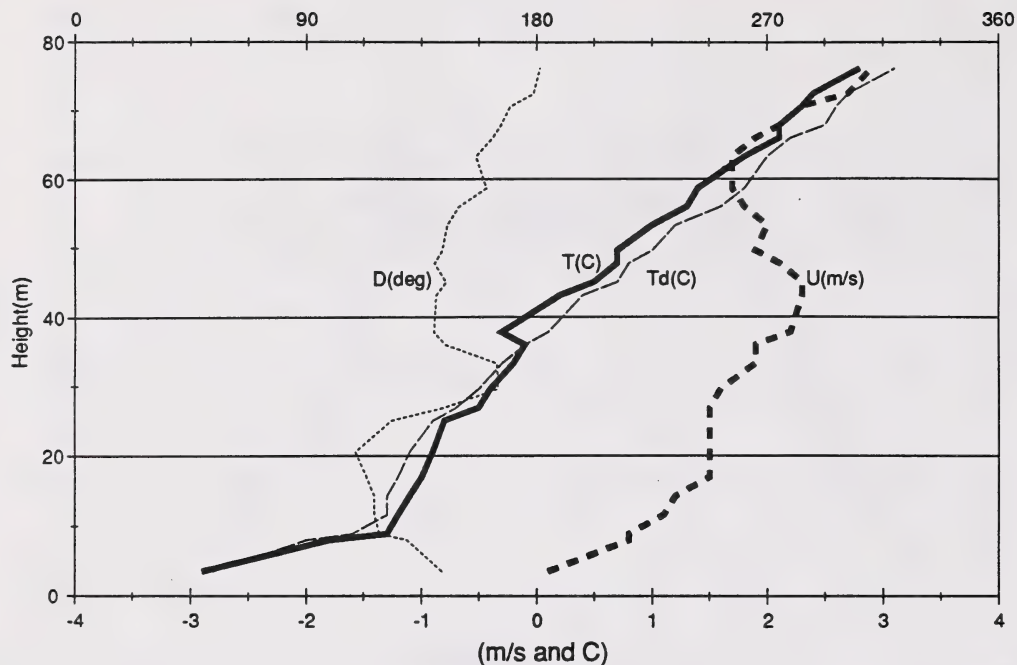


Test 12 Launch 04 23:02 Nov 18 1988 (descent)
(degrees)



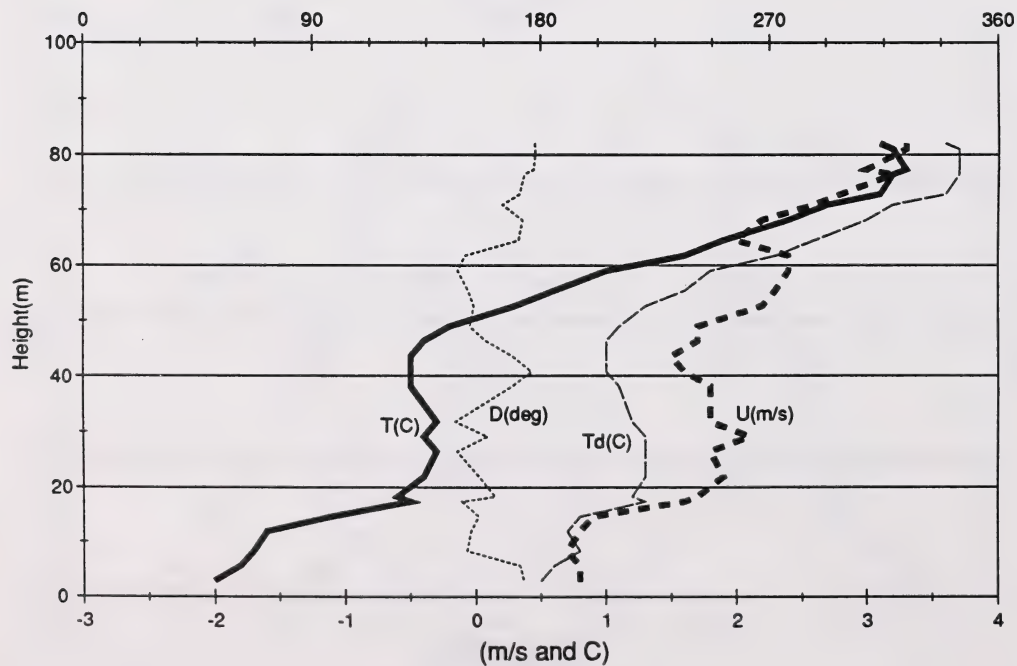
Test 13 Launch 01 18:27 Nov 20 1988 (ascent)

(degrees)

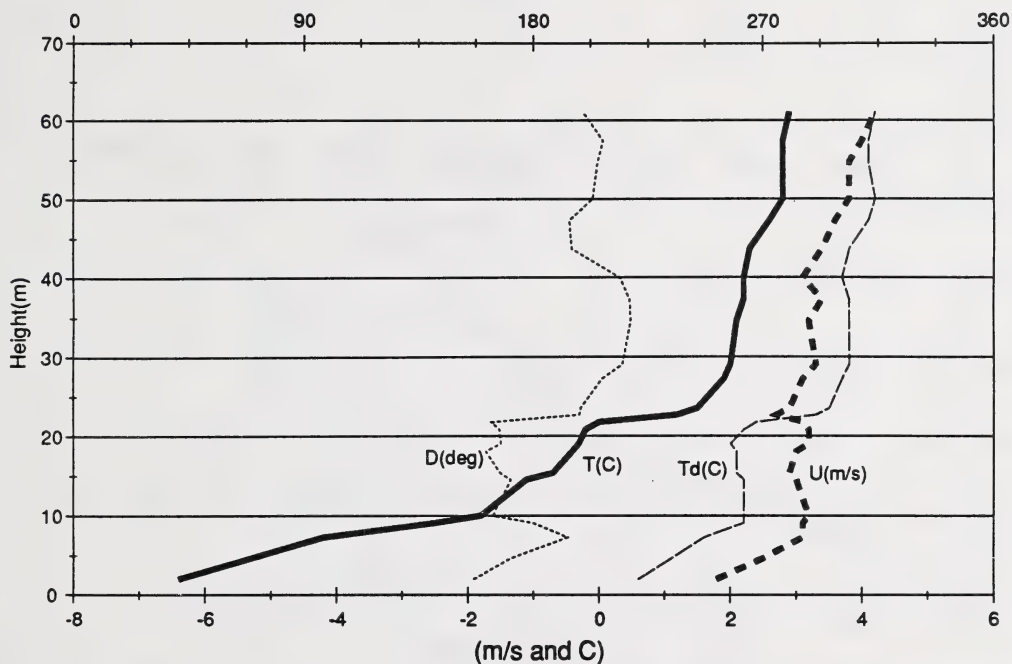


Test 13 Launch 01 18:27 Nov 20 1988 (descent)

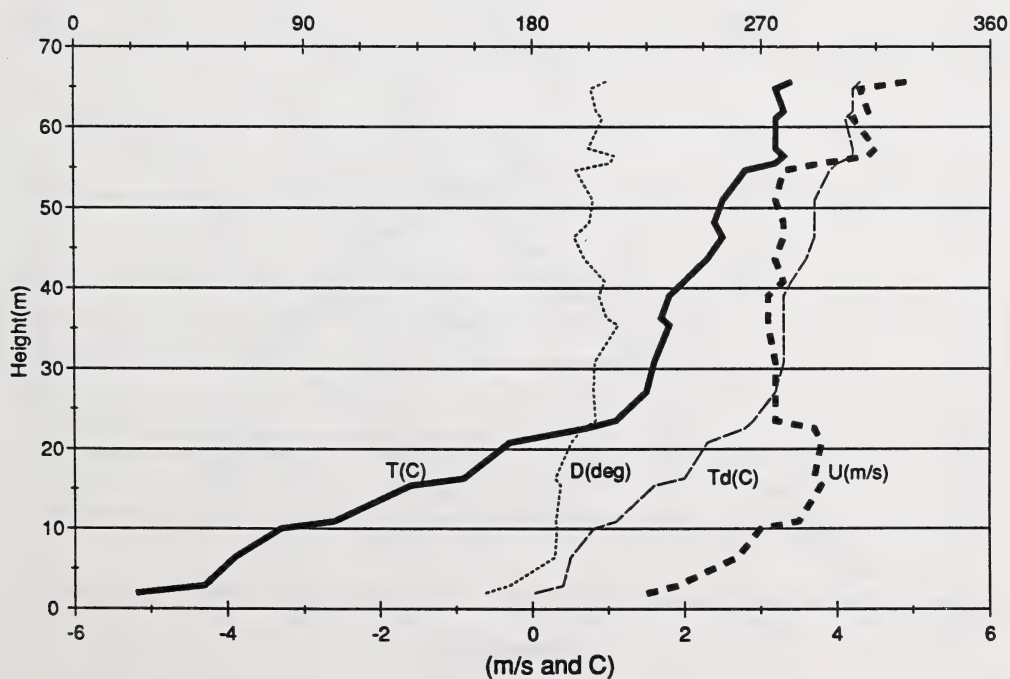
(degrees)



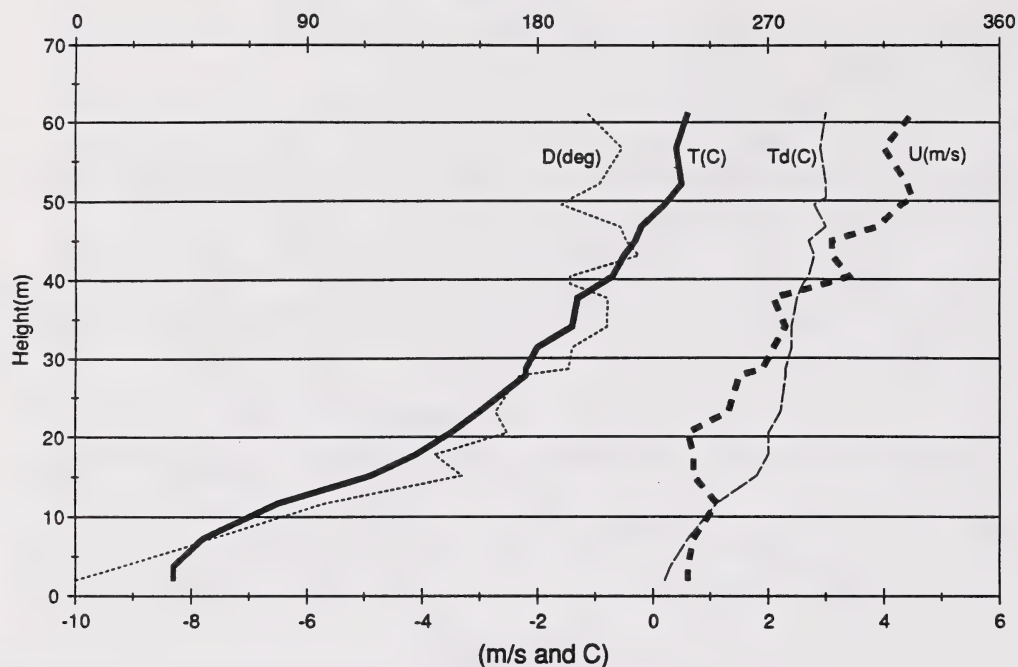
Test 13 Launch 02 19:10 Nov 20 1988 (ascent)
(degrees)



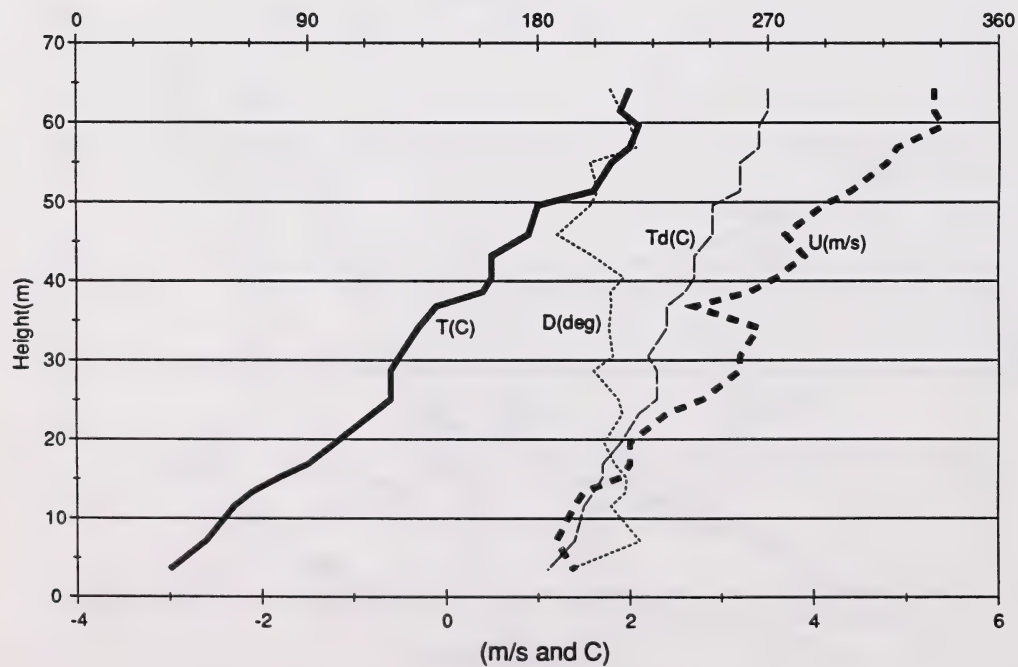
Test 13 Launch 02 19:10 Nov 20 1988 (descent)
(degrees)



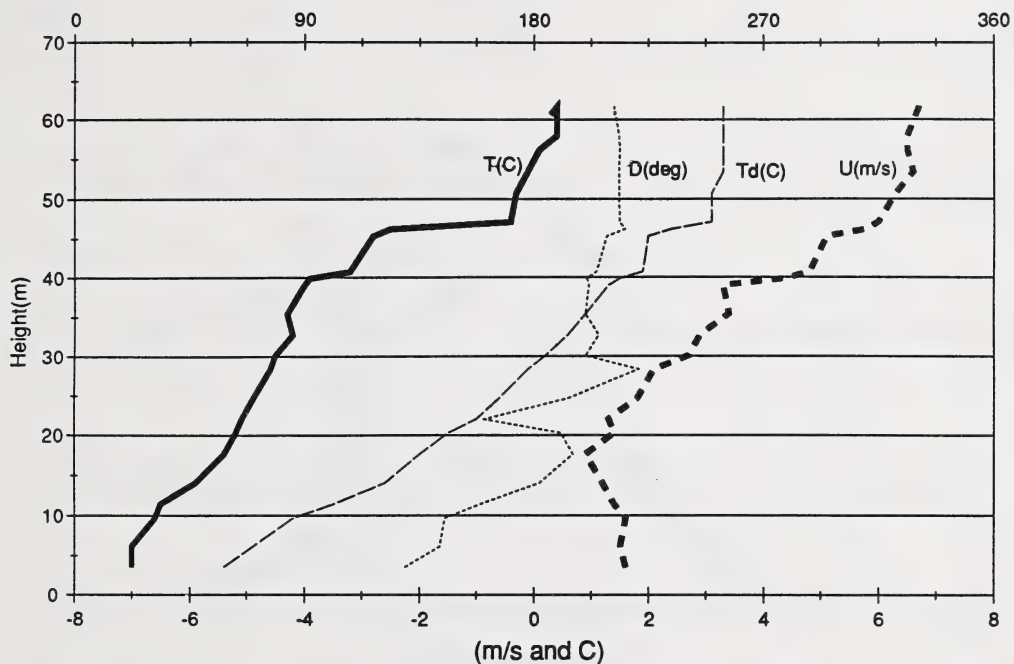
Test 13 Launch 03 20:42 Nov 20 1988 (ascent)
(degrees)



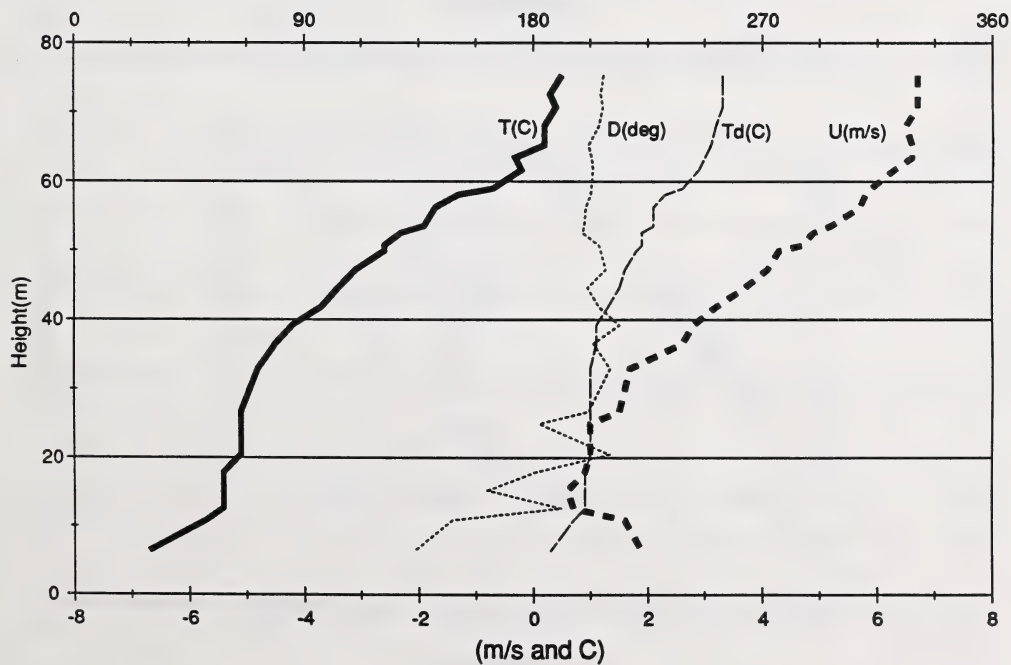
Test 13 Launch 03 20:42 Nov 20 1988 (descent)
(degrees)



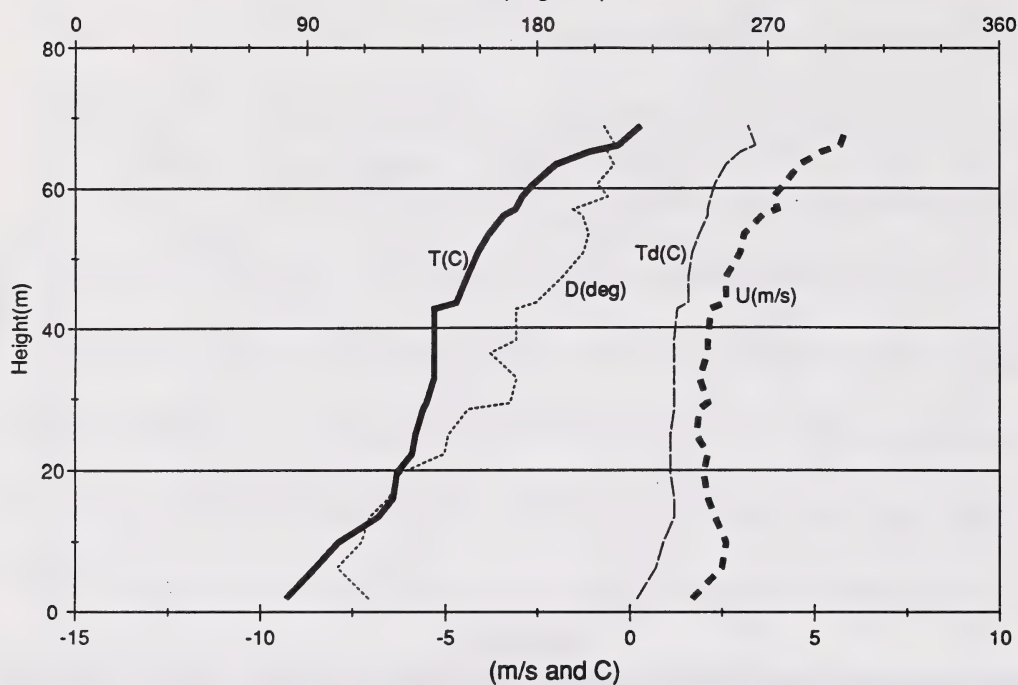
Test 13 Launch 05 23:02 Nov 20 1988 (ascent)
(degrees)



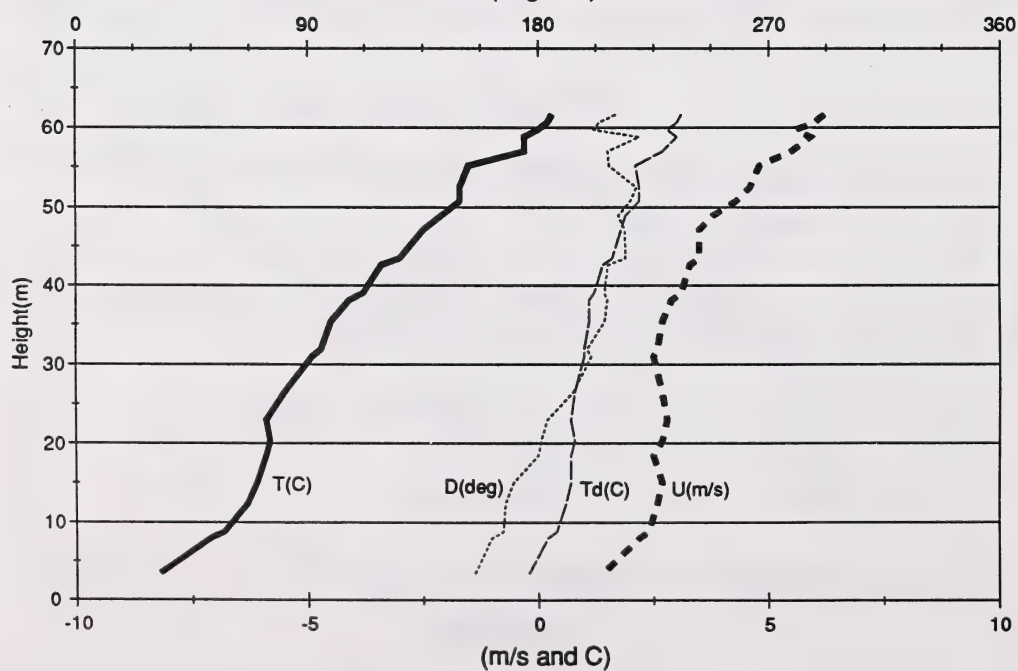
Test 13 Launch 05 23:02 Nov 20 1988 (descent)
(degrees)



Test 13 Launch 06 23:54 Nov 20 1988 (ascent)

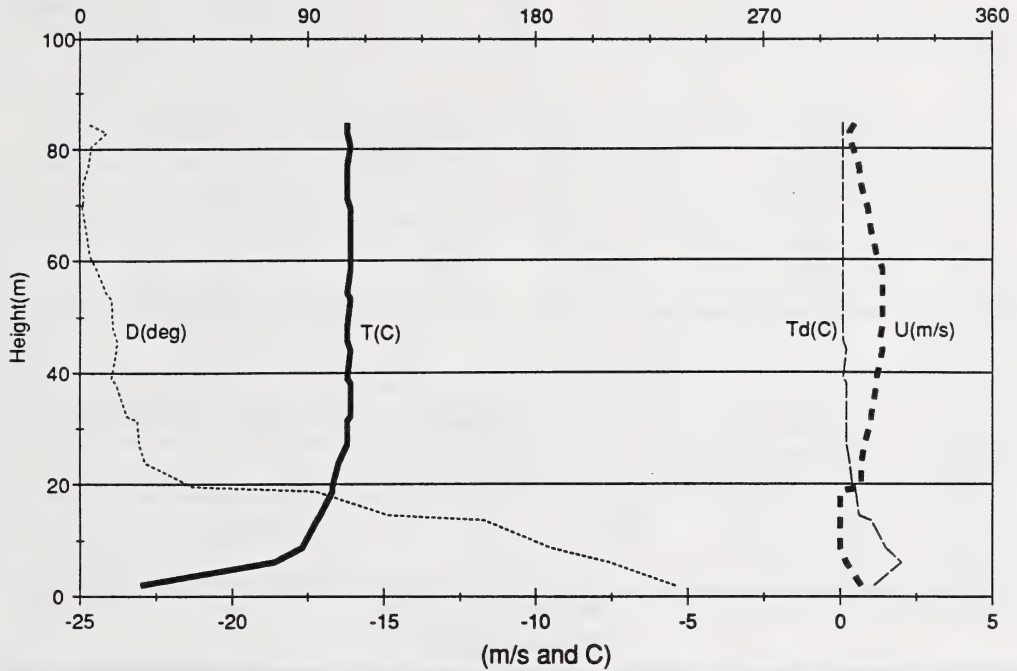


Test 13 Launch 06 23:54 Nov 20 1988 (descent)



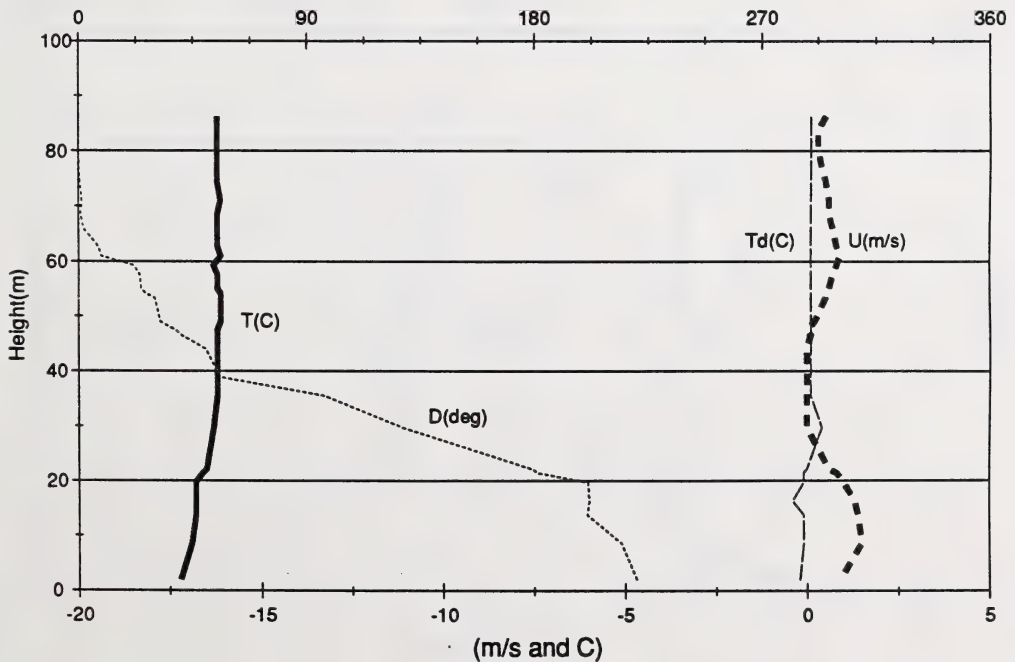
Test 15 Launch 01 17:47 Nov 26 1988 (ascent)

(degrees)

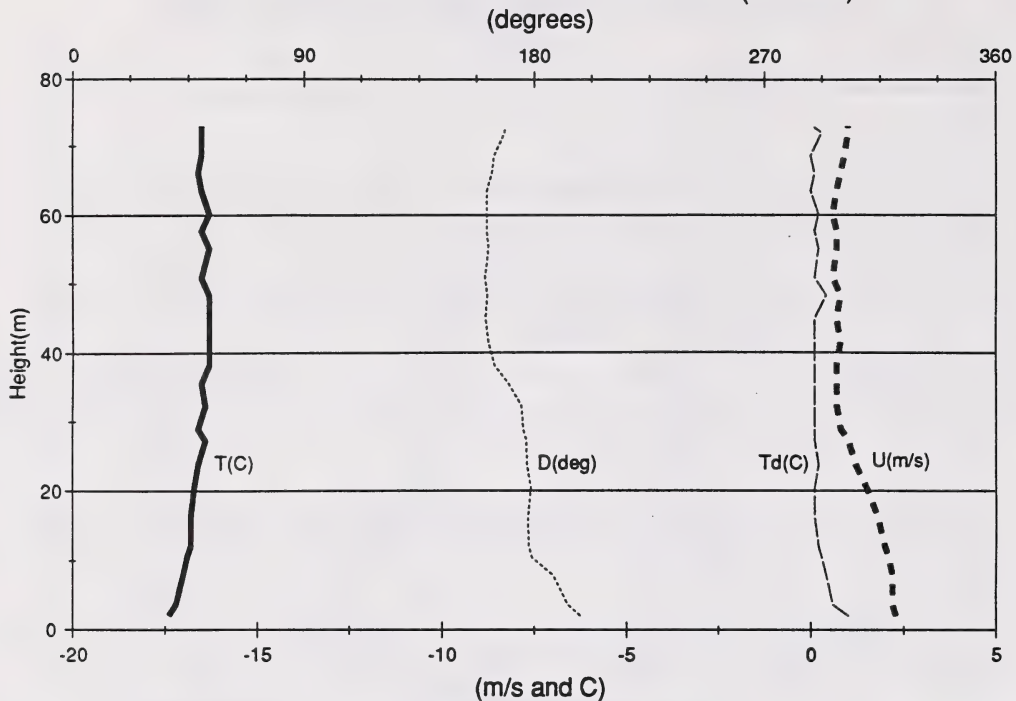


Test 15 Launch 01 17:47 Nov 26 1988 (descent)

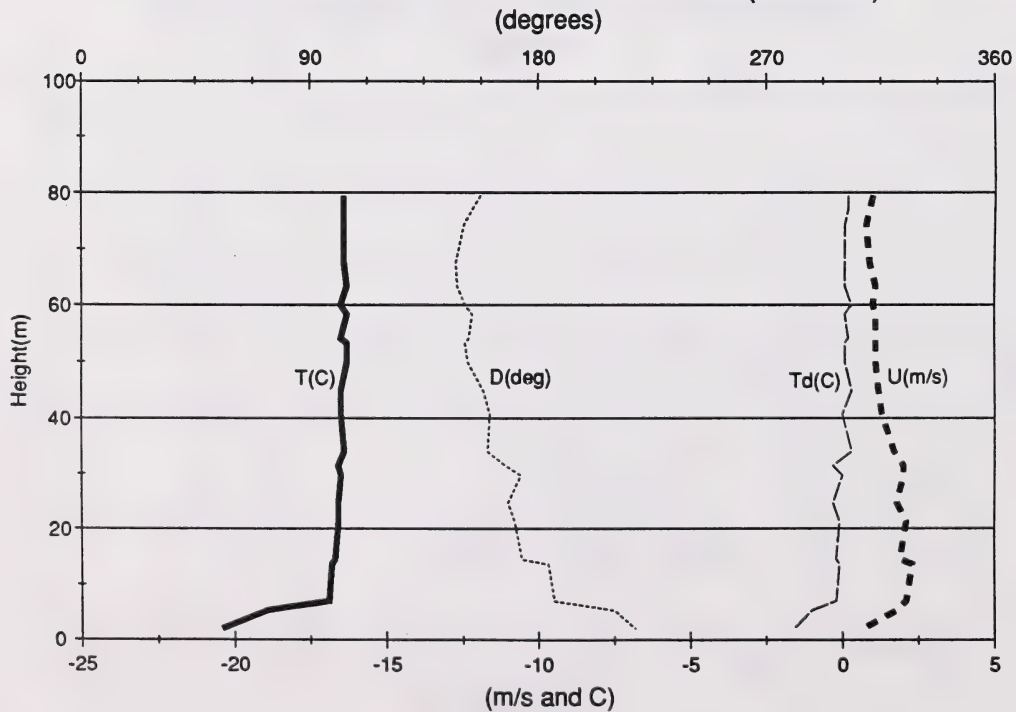
(degrees)



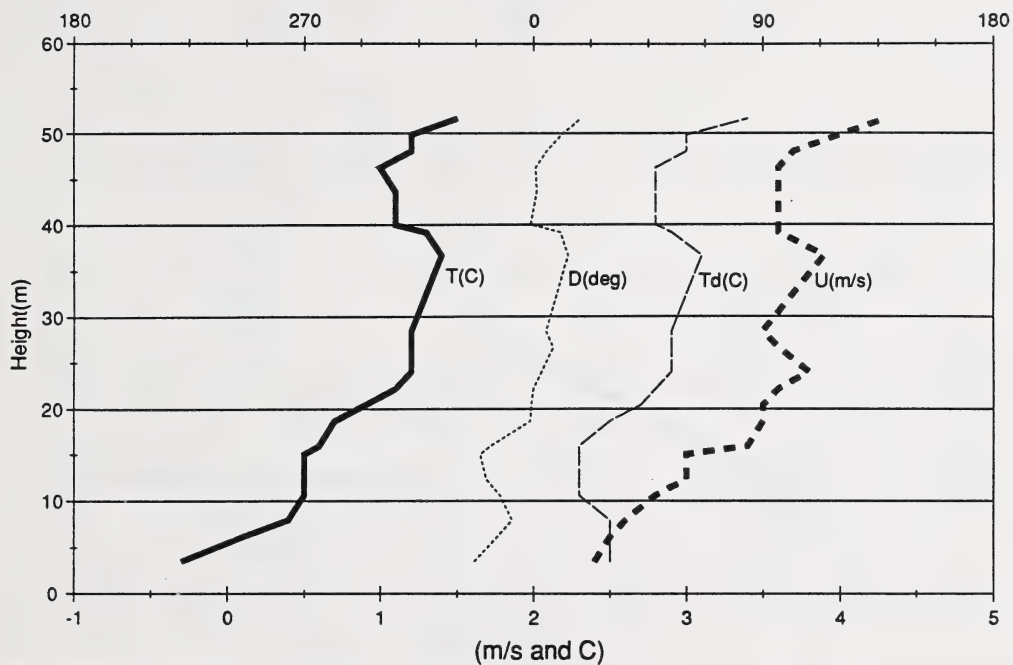
Test 15 Launch 02 18:47 Oct 26 1988 (ascent)



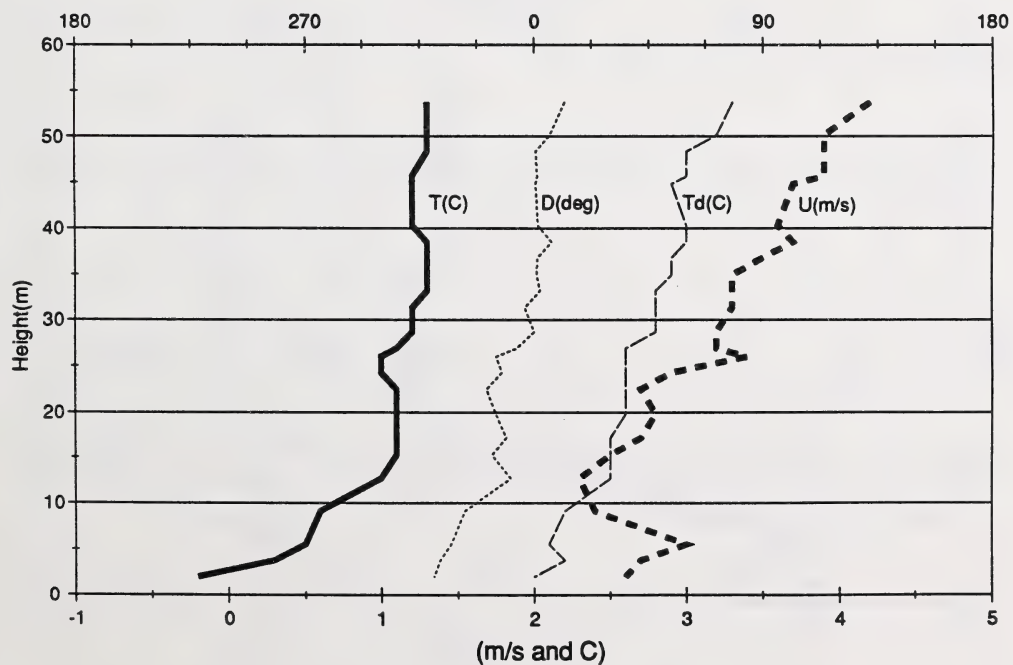
Test 15 Launch 02 18:47 Nov 26 1988 (descent)



Test 16 Launch 01 18:22 Dec 2 1988 (ascent)
(degrees)

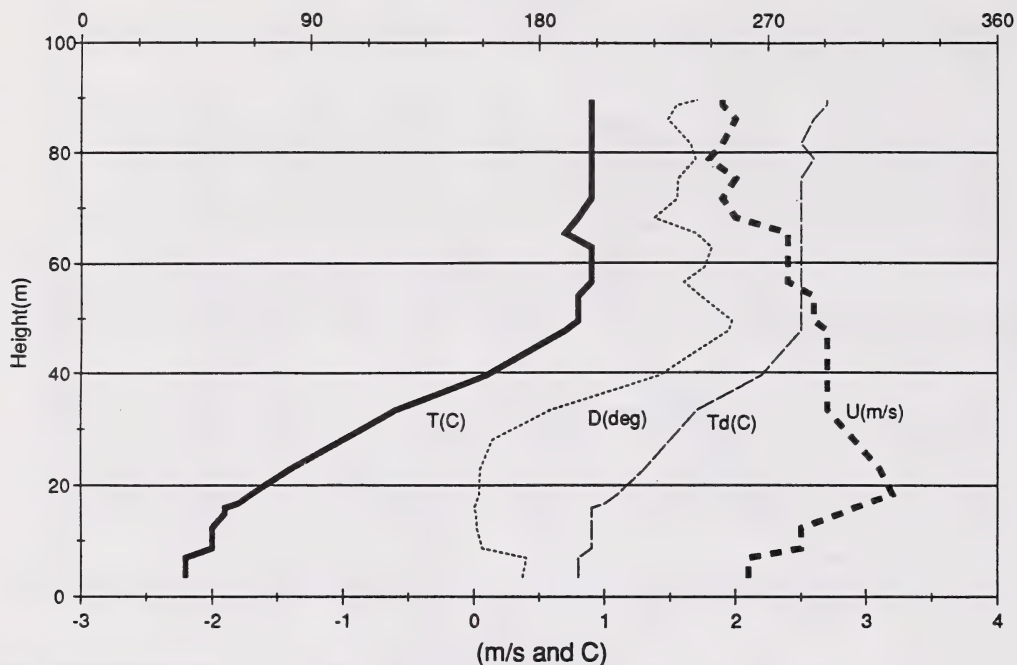


Test 16 Launch 01 18:22 Dec 2 1988 (descent)
(degrees)



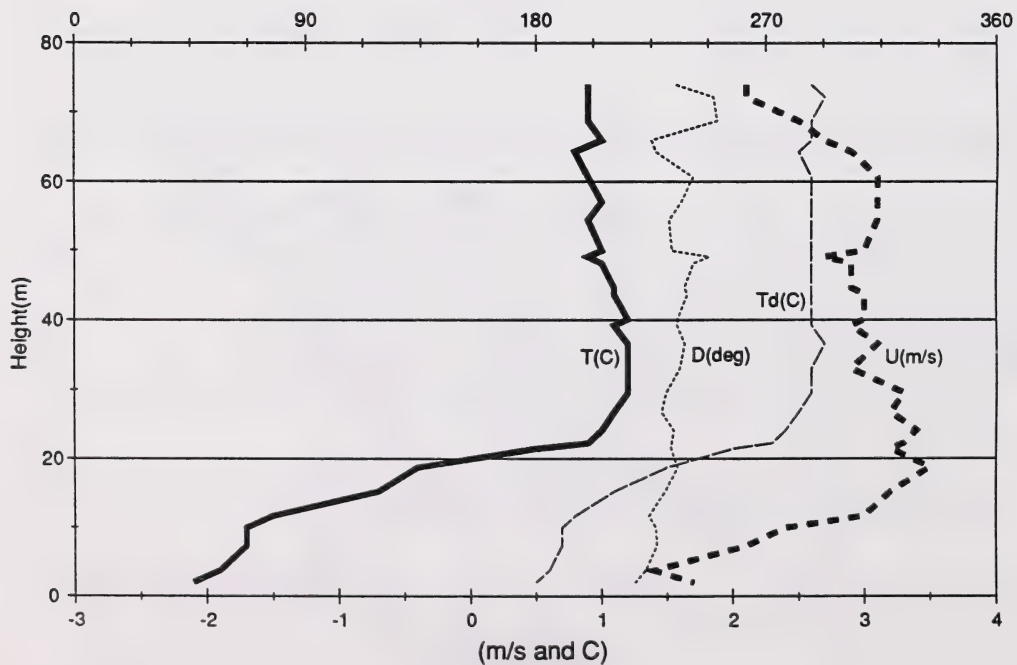
Test 16 Launch 03 20:22 Dec 2 1988 (ascent)

(degrees)

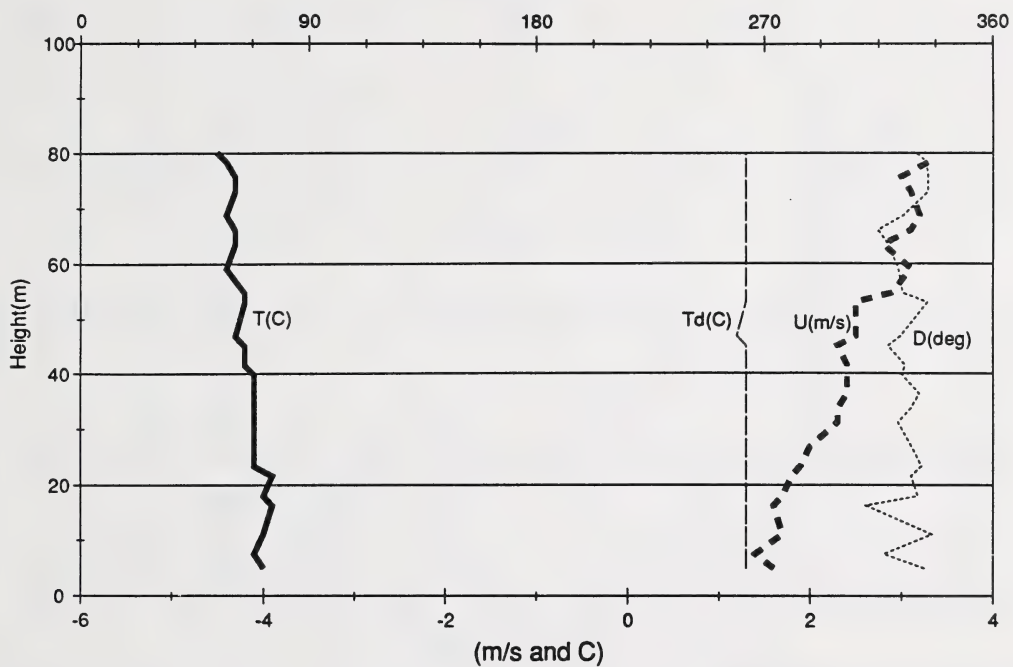


Test 16 Launch 03 20:22 Dec 2 1988 (descent)

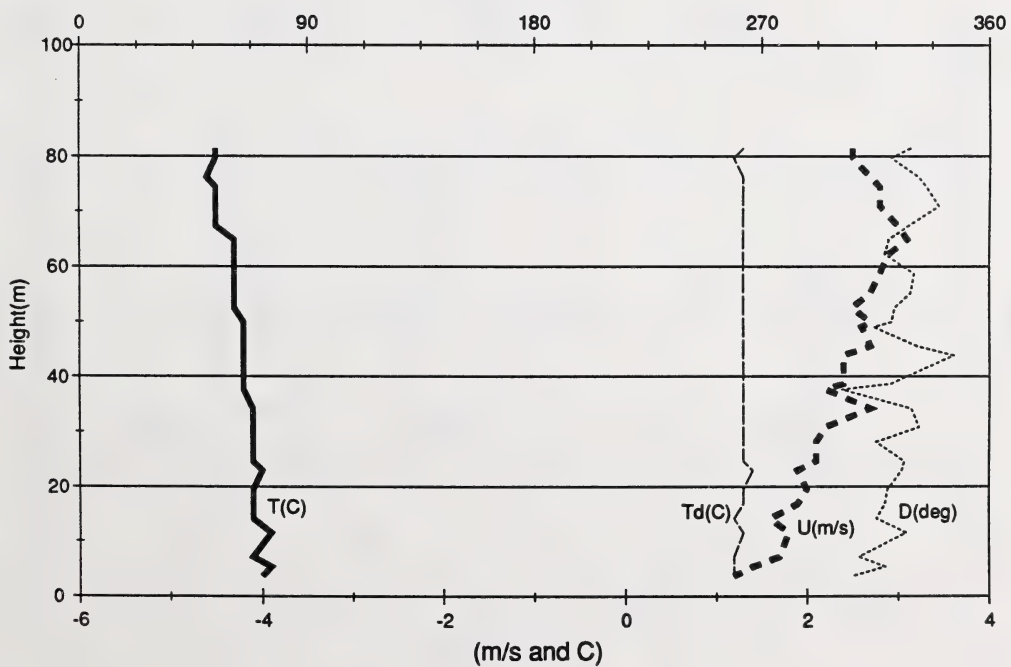
(degrees)



Test 17 Launch 02 18:42 Dec 6 1988 (ascent)
(degrees)

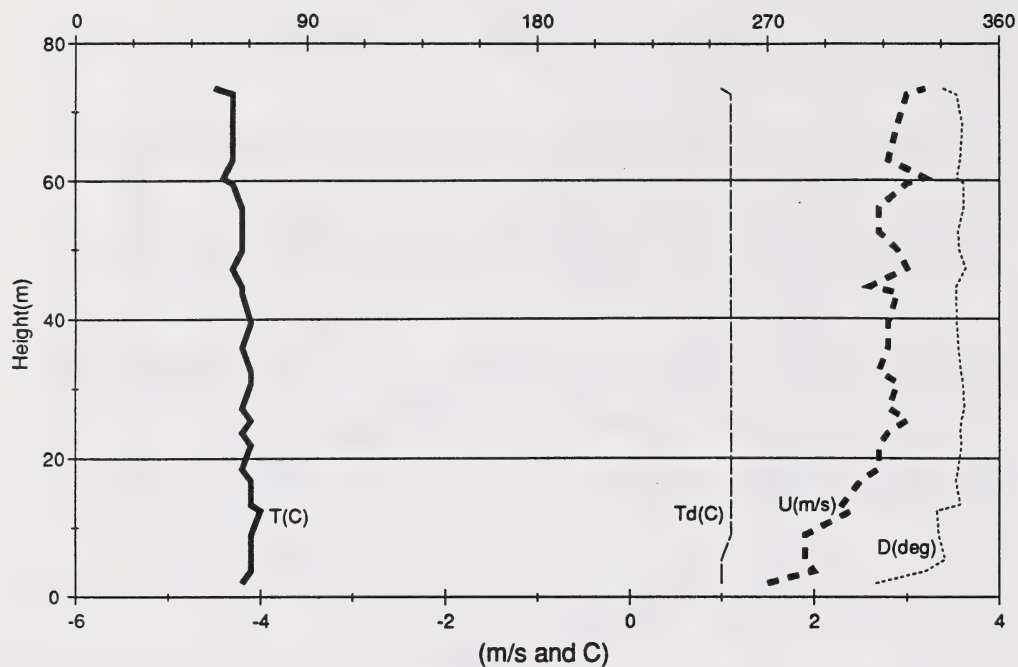


Test 17 Launch 02 18:42 Dec 6 1988 (descent)
(degrees)



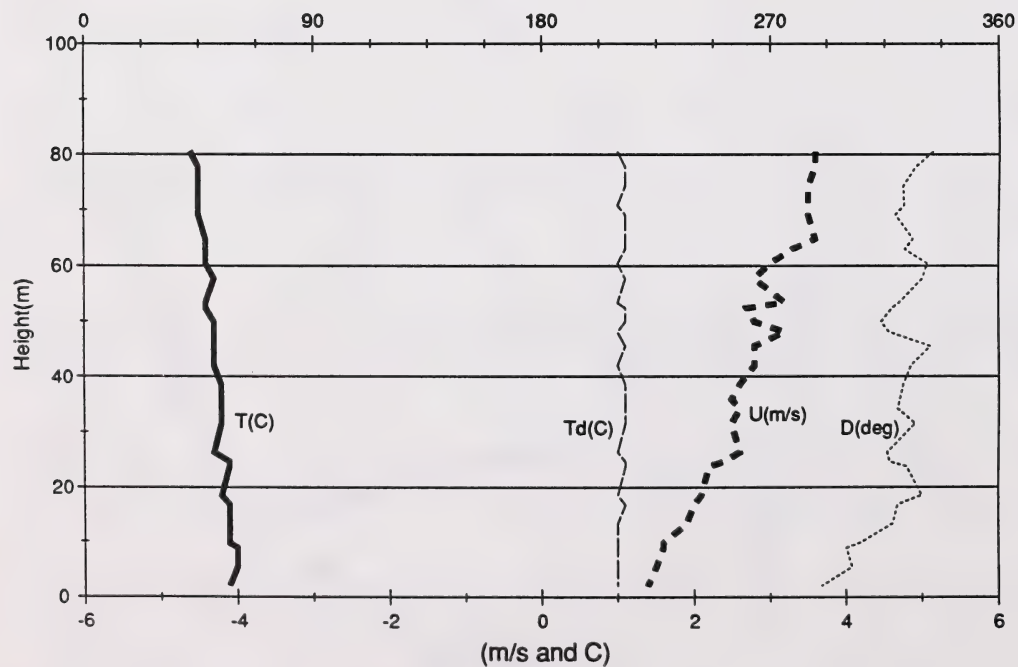
Test 17 Launch 03 19:42 Dec 6 1988 (ascent)

(degrees)

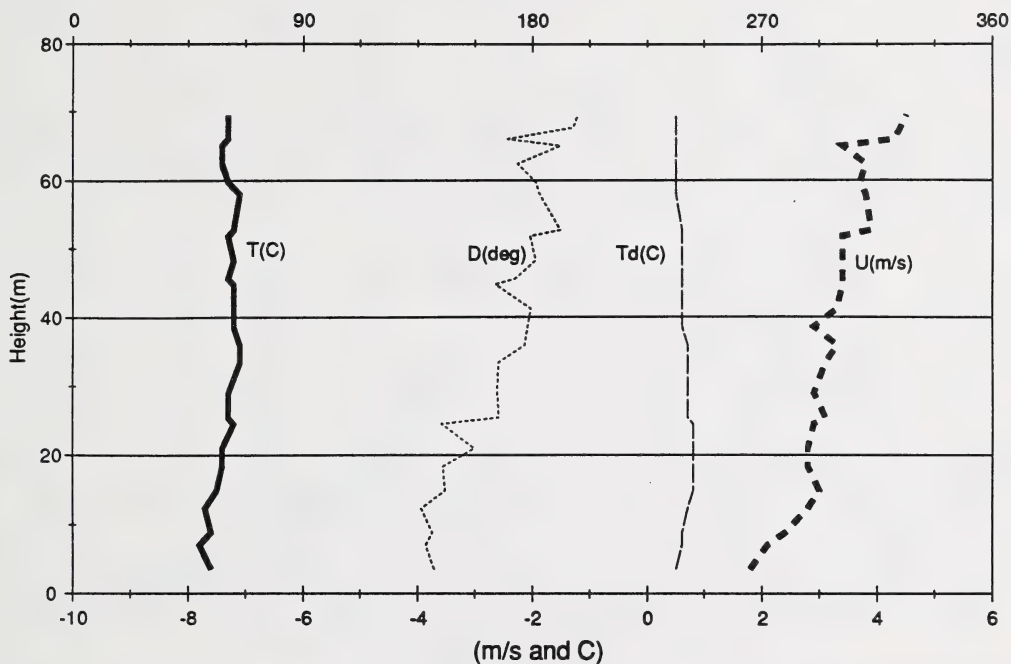


Test 17 Launch 03 19:42 Dec 6 1988 (descent)

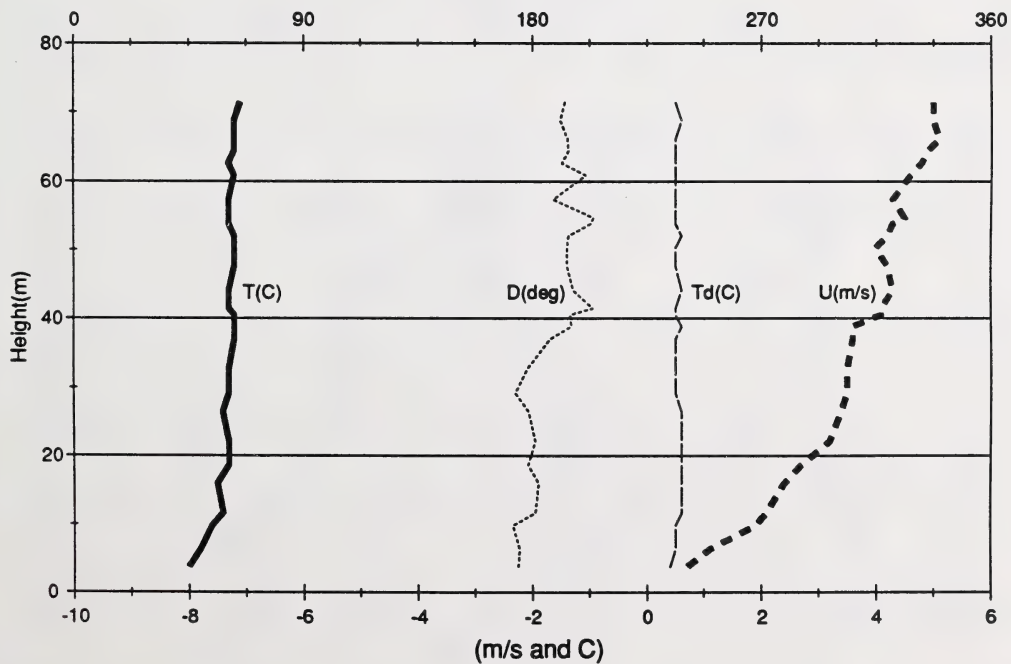
(degrees)



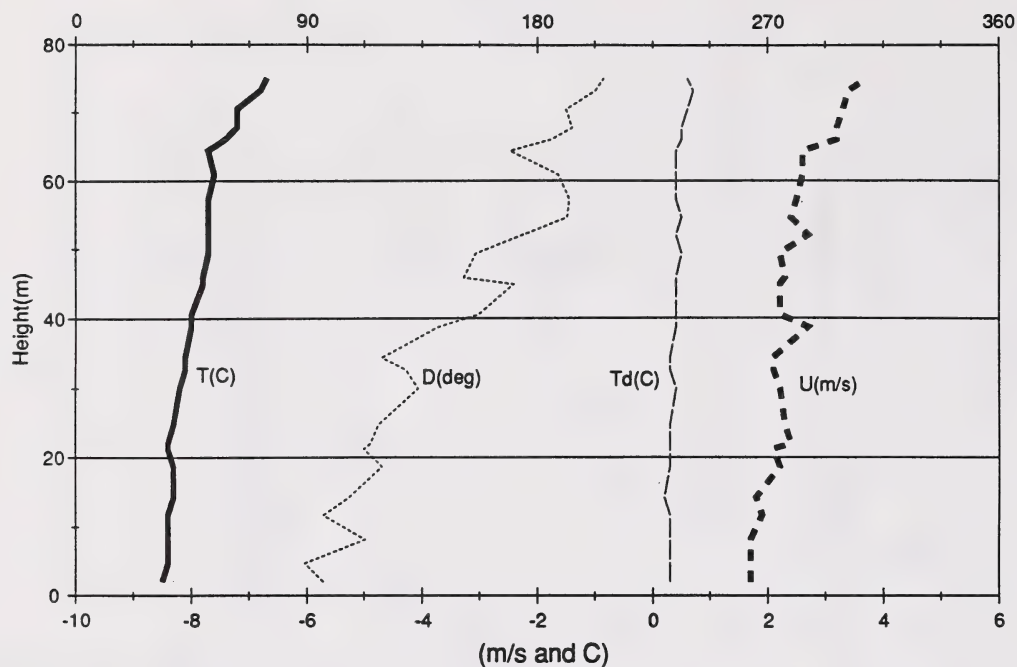
Test 19 Launch 01 18:27 Dec 8 1988 (ascent)
(degrees)



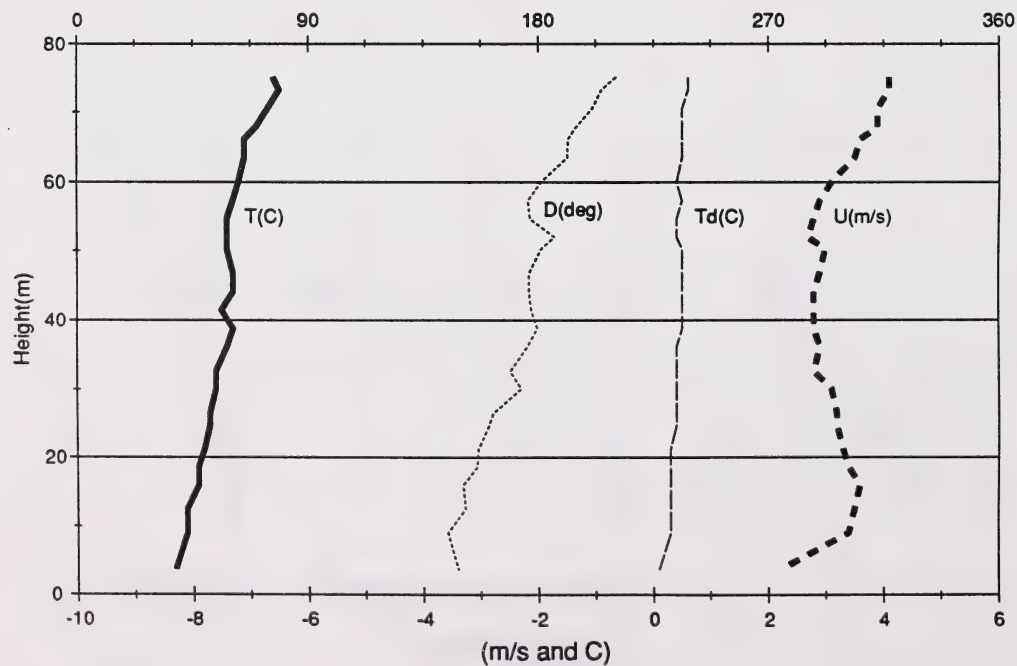
Test 19 Launch 01 18:27 Dec 8 1988 (descent)
(degrees)



Tes 19 Launch 02 21:07 Dec 8 1988 (ascent)
(degrees)

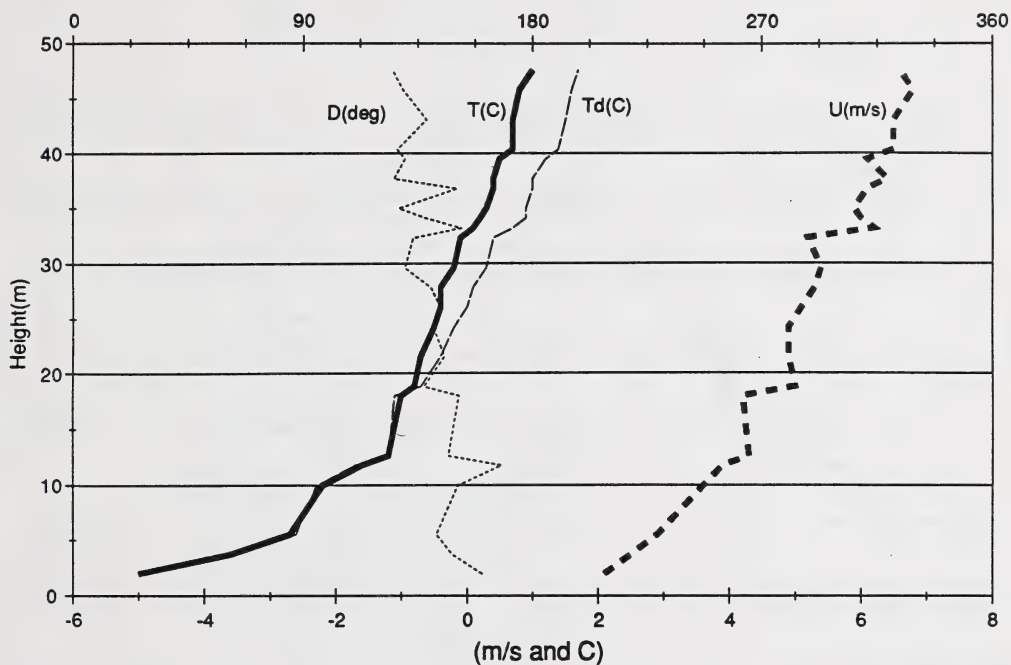


Test 19 Launch 02 21:07 Dec 8 1988 (descent)
(degrees)



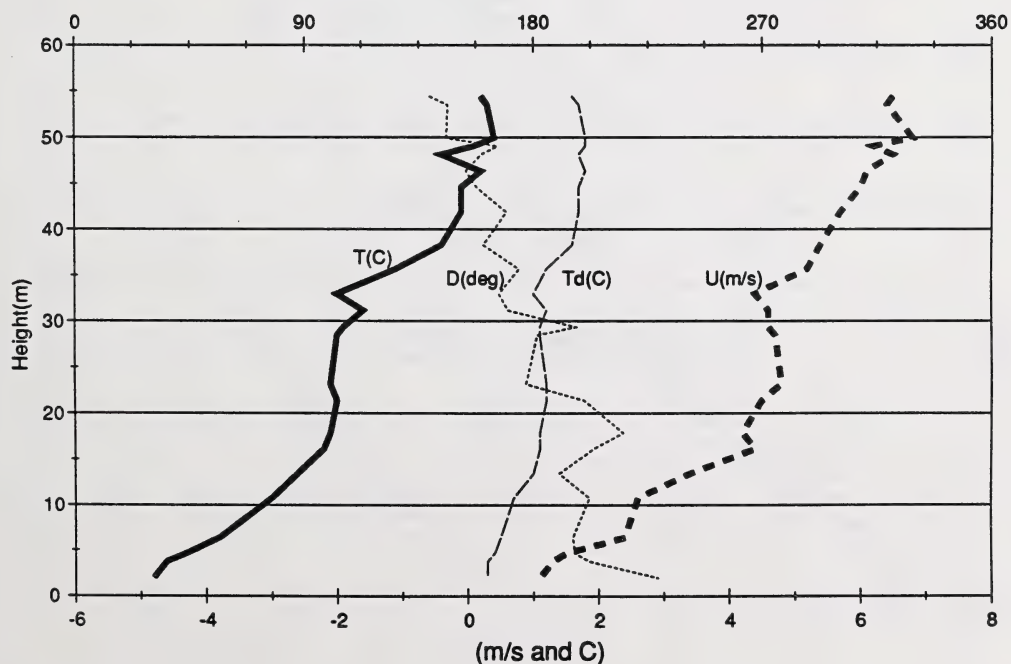
Test 20 Launch 01 18:07 Dec 9 1988 (ascent)

(degrees)

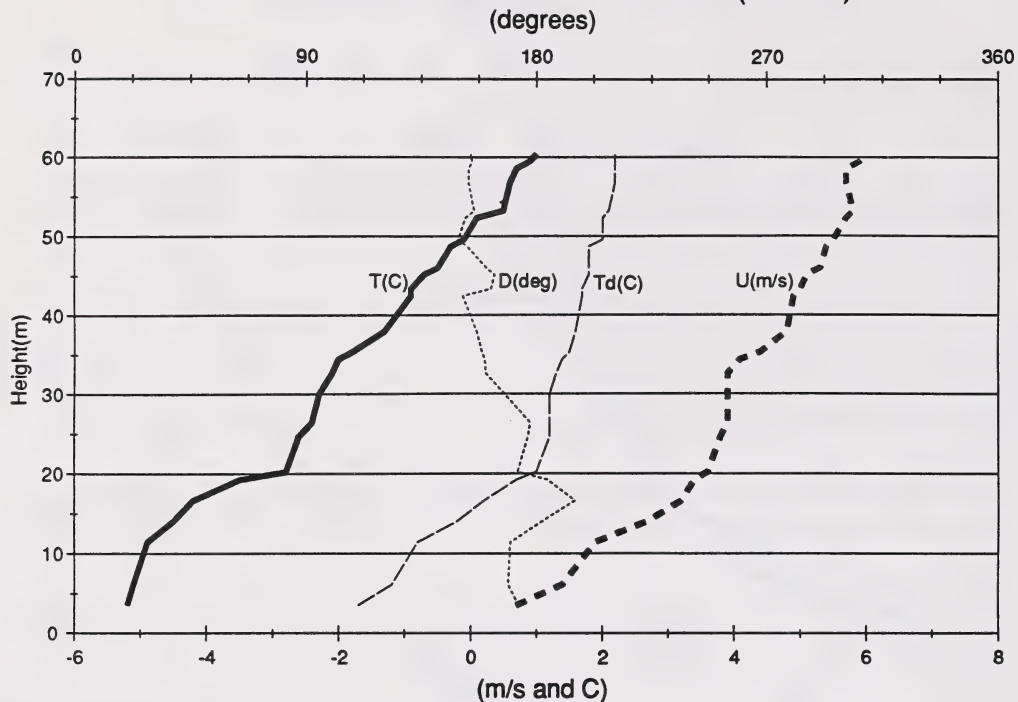


Test 20 Launch 01 18:07 Dec 9 1988 (descent)

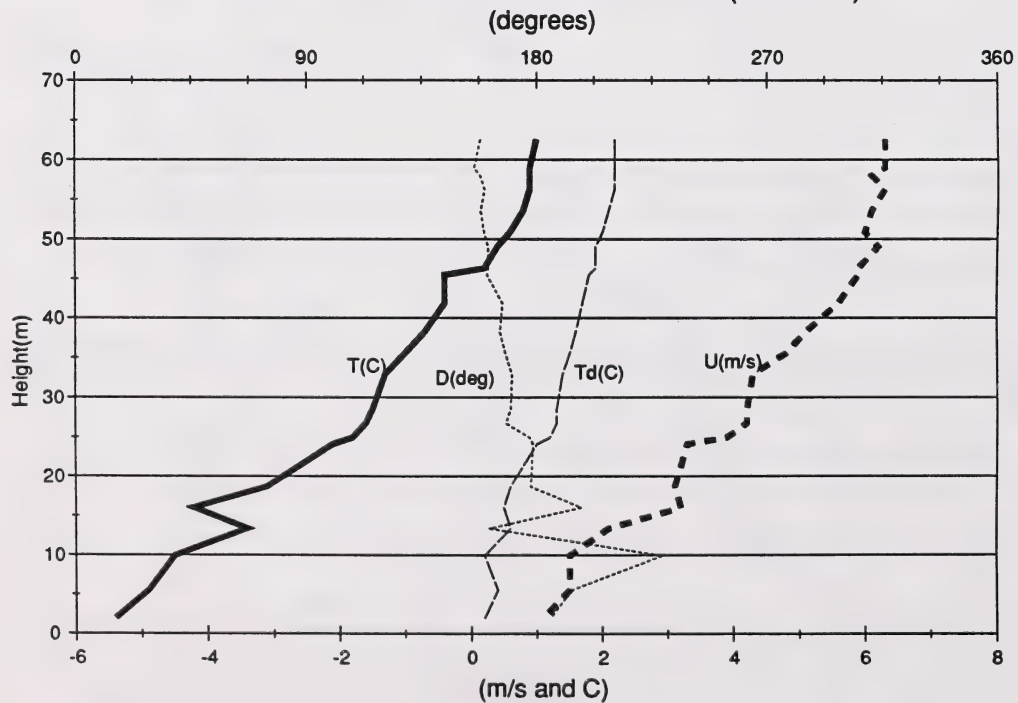
(degrees)



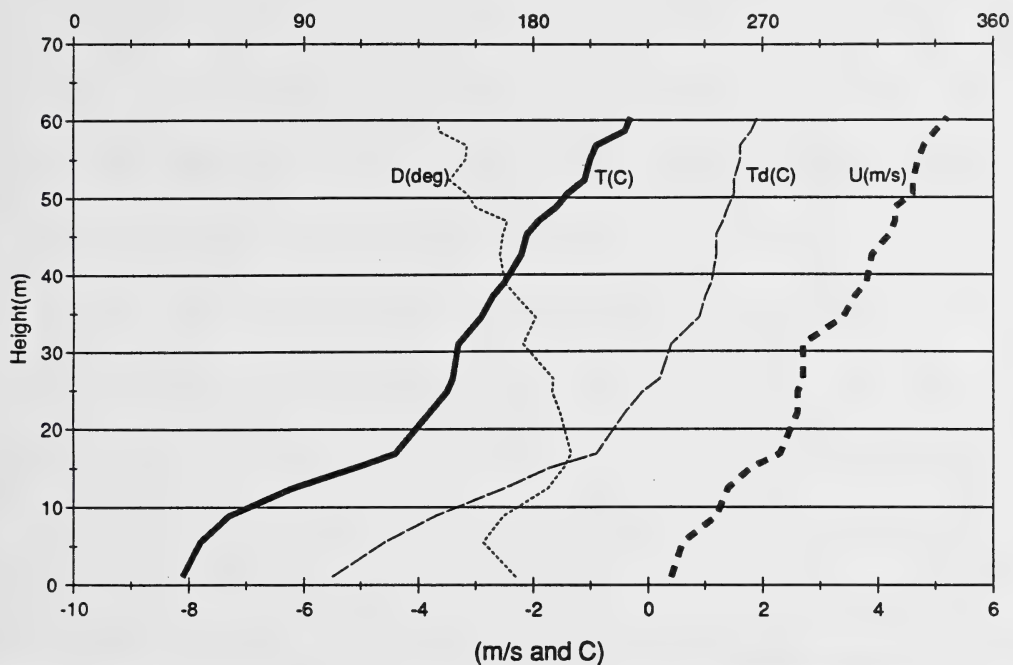
Test 20 Launch 02 19:19 Dec 9 1988 (ascent)



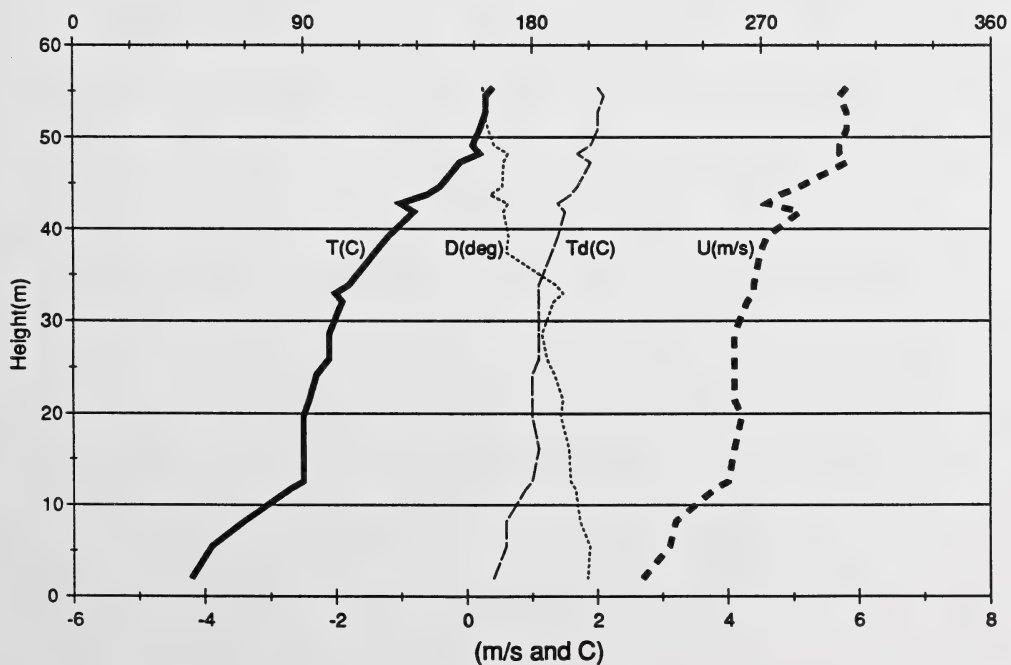
Test 20 Launch 02 19:19 Dec 9 1988 (descent)



Test 20 Launch 03 20:27 Dec 9 1988 (ascent)
(degrees)



Test 20 Launch 03 20:27 Dec 9 1988 (descent)
(degrees)



Appendix D2

Acoustic Sounder Data Manipulation and Plots

Procedure followed for The Preparation of Strip Chart Slides:

The strip chart was laid out on a long table and the time and date field marks originally recorded were identified. The time and date marks provided a reference point to calculate a rate either inches of strip chart per hour or inches of strip chart per 12 or 24 hour period were identified, depending on the Acoustic Sounder recorder used. Once the rate was established, the 12 or 24 hour periods were identified and the date and time period were noted on the strip chart.

The vertical scale on the strip chart is the maximum height the signal can be traced, however it is dependent on the particular instrument as to what the height would be, therefore, the two instruments used during the Field Measurement Program would have the vertical scale of 500 m for the Alberta Environment instrument and 750 m for the instrument from Mount Royal College. Each instrument had a resolution of 25 m.

During the regular operations of the Acoustic Sounder recorder, occasionally the recorder was turned off to clean off snow, etc., from the "dish", or to change the strip chart roll. These time lags required an insertion of chart segments on the 12 or 24 hour strip charts. The 12 or 24 hour segments were mounted on a cardboard that had the horizontal scale marked on it (12 hour or 24 hour periods).

There were usually three 12 hour or 24 hour segments mounted on each cardboard and then photographed on a 35 mm slide film. The slides shot were a reduction 27 times smaller than the original cardboard size. There were 2 shots taken, one was turned into slides and mounted on a standard 2" x 2" slide mount and the other shot was stored for any future reference on microfiche.

The strip charts were also sprayed with a light coating of artist's spray to prevent any smudging.

Interpretation of Echo Charts and Raw Data Sheets

The following symbols were used as a code for each half-hour segment:

- | | |
|---|--|
| S | meaning the shear layer is for the most part level or there is no visible upward or downward trend in the segment as a whole. Also, for this symbol to apply, the shear layer was well defined, i.e., for the most part, solid in appearance. |
| R | meaning the shear layer in the half-hour segment had an upward or downward trend when considering the half-hour segment as a whole. |
| T | meaning thermal plume mixing, which is characterized by distinct spikes from ground level throughout the half-hour segment; similar in appearance on the chart to stalagmites. |
| I | meaning inversion - used when a distinct inversion layer is shown on the chart, always as an elevated layer; depicts the limit to which the mixing height can reach, although mixing is not necessarily present up to the inversion layer level. |

- F meaning instrument failure, which is clearly visible on the chart as totally aberrant data.
- (Blank) meaning no observable layer seen on the chart.
- meaning no data due to paper inserts for time correction.
- noise meaning too much noise on the chart to make good layer readings possible.

For ground based layers, only the top of the layer was taken as data, and was accompanied by the appropriate above code when noted on the data sheet. The top of the layer was taken as the level at which there was a distinct difference between the markings immediately above and below that level. The average value of the level was taken as the data value.

For upper layers, i.e., elevated layers, data was taken in the same manner as for ground layers, but both the top and the bottom levels of the elevated layers were measured. The only codes used for these values were S, R, and I.

A correction in the baseline was needed in some instances, and the correction value used for the 12 hour portion of the data chart is noted near the top of the data sheet. Data values were corrected only when a very stable segment was measured. For variances in the segment level more than about 15 m, the correction value was not taken into account. In all instances, corrected values have already been applied when appropriate, i.e., all values on the data sheet need not be corrected again.

On the whole, data values (which are averages over the half-hour segment) are accurate to ± 30 m, although individual spikes or portions of a segment can vary from the average by up to about ± 150 m.

On the right hand edge of the data sheet, stability regions were noted beside the time period in which the stable period began and ended. The symbols used are BS (for Begin Stability) and ES (for End Stability). Stability periods are the segments in which level periods persist for more than about 3 hours. Most stable periods begin in the evening, after sunset, and end before sunrise. There is not necessarily a stable period every night. The half-hour segment beside which the code is written is included as part of the stable region.

For each 12 hour portion of the data chart, a data sheet has been filled out, including the date, time, and other notes. There are two data sheets for one days worth of data; the data begins at 0000 and 1200 for each 12 hour period, although the first time periods on the data sheet are noted 00:30 and 12:30, depicting that the first segment started at 0000 (or 1200) and ended at 0030 (or 1230).

Raw Data Files

The raw data files are setup in a manner similar to the raw data sheet. The first two columns (columns A and B) in the file are used to list the date and the time. The third column (column C) is used to list the stability codes. Columns D and E are used for ground based layers, with the code listed in Column D and the height in Column E. Similarly, Columns F, G, H, and I are used for the top and bottom levels of the first elevated layer, and Columns J, K, L, and M are used for the second elevated layer.

The symbol N is used for noise, and X is used for paper inserts (which on the data sheets are listed as --). The other symbols are the same as those used on the data sheets.

The raw data is stored by month; for each month, a separate file has been created. The filename used for each file includes the word RAW, referring to RAW data, the name of the month, and the year. For example, RAWNOV88.WR1 is the filename for the raw data for the month of November 1988; WR1 is the extension used by SYMPHONY.

Manipulated Data Files

These files are setup similar to the raw data files, the first three columns being the same as those used in the raw data files. Columns D, E, and F list the top of the mixing height layer (which are ground based). The fourth column, (column D) lists those mixing heights which are in the stable region; and beside the first and last values in this column for each stable period is listed the stability code, in column C. Column E lists the mixing heights which are not in the stable region, i.e., those in the unstable region and those in the transition region between stable and unstable regions. Column F lists estimated mixing heights for those segments which have no data due to noise or paper inserts for time corrections. For originally blank time segments, no estimate is made (or required). Estimates are made for occasions when not more than about 4 data values are missing between listed values.

Estimates are made by dividing the difference between the two listed "end" values by the number of estimate time periods, resulting in a smooth curve between the two listed end values.

Column G lists the time again, but in two hour increments. This column is used for graphing purposes only.

Only 24-hour portions which have stable regions are listed in this file. The portions retained begin at 1200 and continue until 1200 the following day. This results in the stable region to be somewhat in the middle of the 24-hour period. Each 24-hour period is separated by a blank row, with the first and last rows being the same as the last and first rows of the portions immediately above and below respectively. This is for graphing purposes.

As of yet, only the month of November is listed in this file, but the other months should also fit into this file without memory allocation problems. The filename of this file is STBLGRPH.WR1, which stands for Stable Graphs.

Graph Files

For each 24-hour portion listed in the manipulated data files, a plot is made and stored in PIC form. The PIC filename used lists the day, month and year of the first day listed on the plot, as well as an identifier, AC, used to designate Acoustic sounder. For example, AC051188.PIC is the graph file for the 24 hour portion beginning 1200 on November 5, 1988 and ending November 6, 1988 at 1200. The setting sheet is also stored under the same name as the filename of the PIC file for each 24 hour portion.

The graph is setup in line graph form, with a separate column used for stable, unstable, and estimated values. A legend is listed on the bottom, and the title lists the start and end days. Both axis are numbered and labeled; the x-axis uses the values in column G, and the y-axis is manually set to print height in metres from 0 to 700 m.

The Acoustic Sounder records on a chart recorder the echo of a sound pulse, which it emitted, from turbulence regions in the atmosphere. From the echo that is received by the antenna, a chart is created representing the height of the layer in the atmosphere producing the echo. The stylus on the recorder darkens the chart as the echo is being received. By repeating the transmit-receive-record sequence, an almost continuous diagram of the atmospheric regions over the sounder was created. The Acoustic Sounder that was used was of the Monostatic type, meaning a single antenna was used for both receiving and transmitting the sound pulse.

The echoes that the sounder receives are due to small-scale temperature variances in the atmosphere, which means the existence of a local non-neutral vertical temperature gradient. A neutral temperature gradient would result in a parcel of air to remain at equilibrium when displaced vertically from another location which also was at equilibrium, meaning an adiabatic cooling rate of 1° for every 100 m rise. A stable temperature gradient is when the cooling rate is less than this value, or even warming takes place. An unstable gradient means a greater cooling rate. Interfaces between two characteristically different layers of air produce good echoes, such as the top of mixing layers, during significant shear occurrences in stable flows, and the region near the ground due to radiational heating and cooling. [Note: all the above information was taken from the Monostatic Acoustic Radar Booklet by Aerovironment Inc.]

After a roll of data had been charted (about 2 to 4 weeks worth), the chart was cut into 12 hour sections (sometimes 24 hour sections, depending on the chart speed), so that chart sections of equal length were made. Some cutting and pasting of small chart portions were necessary so as to keep time marks on the chart to align up. These equal length chart sections were photographed, transferred to microfilm, and also made into slides, to facilitate data interpretation.

During interpretation of the echo charts, the following symbols were used as a code for each of the half-hour data segment values recorded:

- S meaning the shear layer is for the most part level or there is no visible upward or downward trend in the segment as a whole. Also, for this symbol to apply, the shear layer was well defined, i.e., for the most part, solid in appearance.
- R meaning the shear layer in the half-hour segment had an upward or downward trend when considering the half-hour segment as a whole.
- T meaning thermal plume mixing, which is characterized by distinct spikes from ground level throughout the half-hour segment; similar in appearance on the chart to stalagmites.

- I meaning inversion - used when a distinct inversion layer is shown on the chart, always as an elevated layer; depicts the limit to which the mixing height can reach, although mixing is not necessarily present up to the inversion layer level.
- F meaning instrument failure, which is clearly visible on the chart as totally aberrant data.
- (Blank) meaning no observable layer seen on the chart.
- meaning no data due to paper inserts for time correction.
- noise meaning too much noise on the chart to make good layer readings possible.

For ground based layers, only the top of the layer was taken as data, and was accompanied by the appropriate above code when noted on the data sheet. The top of the layer was taken as the level at which there was a distinct difference between the markings immediately above and below that level. The average value of the level was taken as the data value.

For elevated layers, data was interpreted in the same manner as for ground layers, but both the top and the bottom levels of the layers were recorded. The only codes used for these values were S, R and I. Up to two elevated layers were recorded.

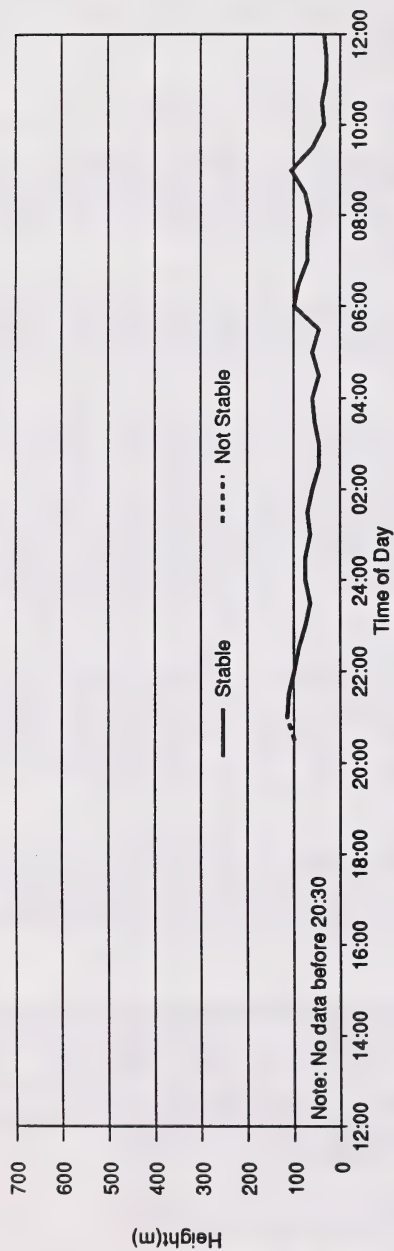
When recording data from the charts, a correction for the baseline was used in some instances. Data values were generally only corrected for very level segments was not of much use due to the offset baseline, and partly due to the poor echo region immediately above the sounder antenna, and also because of ground level noise, data was not observed on the chart up to about 50 m. On the whole, data values (which are averages over the half-hour segment) are inaccurate to no more than about 30 m, although individual spikes or portions of a segment can vary from the average by up to about 150 m.

The data that was collected was grouped into stable and non-stable regions. Stable periods are those periods in which the level periods persist for more than about three hours. They are classified by their "smooth" top and dark consistent body on the chart records. Most stable periods begin in the evening, after sunset, and disintegrate before or during sunrise. There is not necessarily a stable period every night. The region below an inversion layer is considered to be stable.

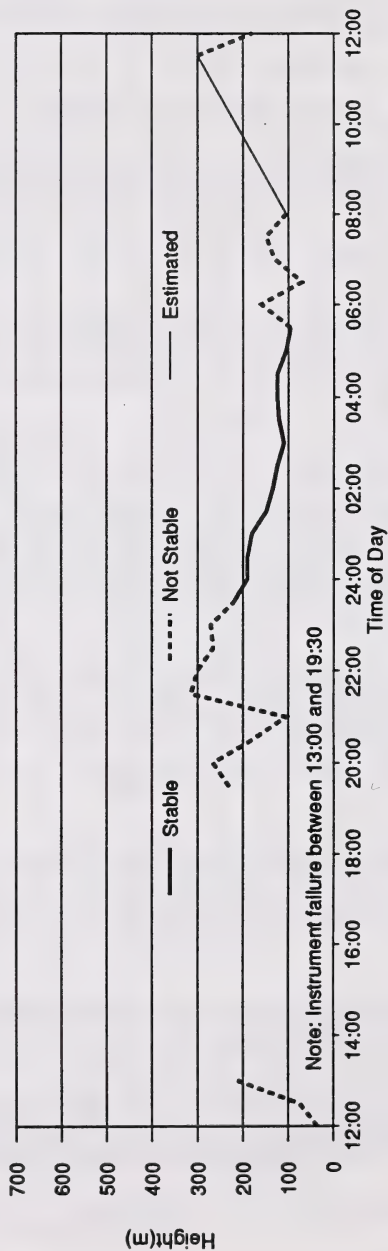
After the data was interpreted from the slides, it was transferred to Symphony worksheet files, where the data was sorted into 24 hour periods, beginning at 1200. The 24-hour periods not containing stable periods or test days were eliminated, and the remaining data was plotted in a line graph.

The graphs of the data were enhanced in Freelance and labeled with instrument failure and no data warnings for long periods of missing data. Short periods of missing data were estimated by connecting the end points of the lines on either side of the missing data. The heavy solid line represents stable periods, while the dash line represents non-stable periods. Estimated lines are drawn with a thin solid line. Altogether, there are 62 graphs of the data from the beginning of November (Nov. 4) to the end of March, including 27 test days.

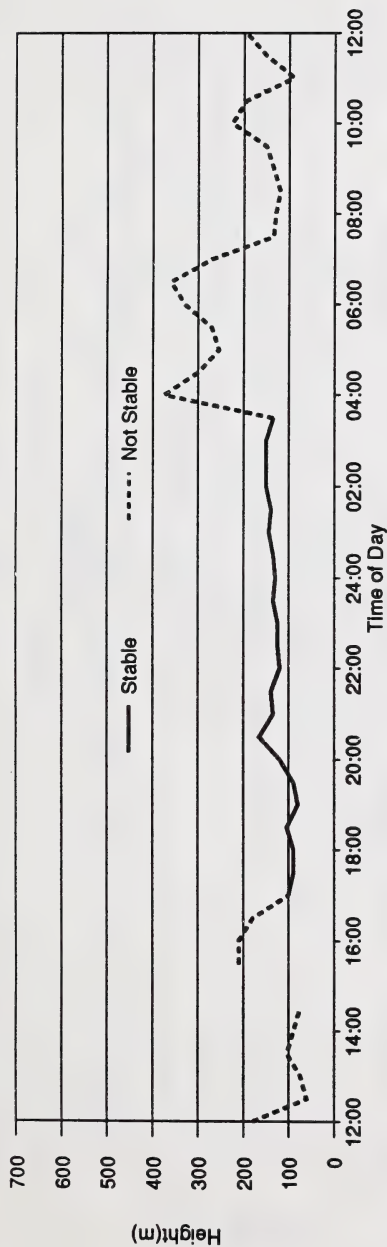
November 4 - 5, 1988



November 5 - 6, 1988

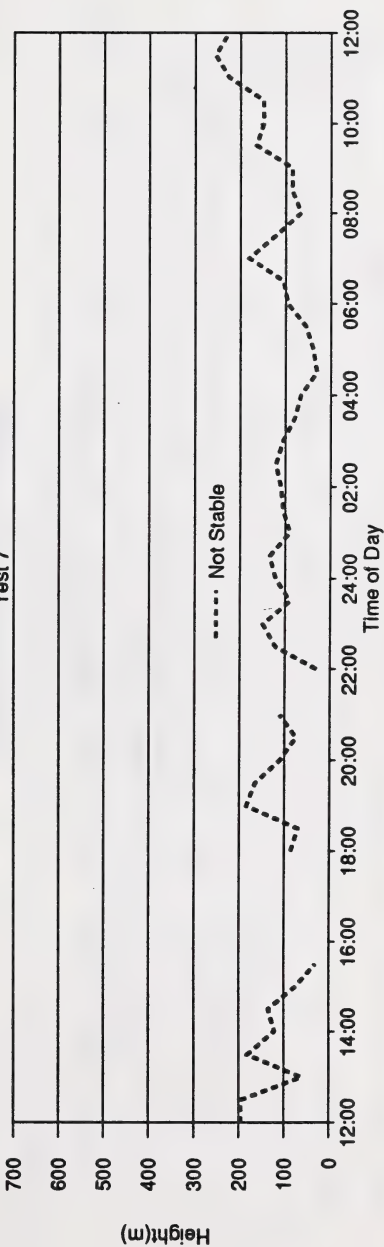


November 6 - 7, 1988



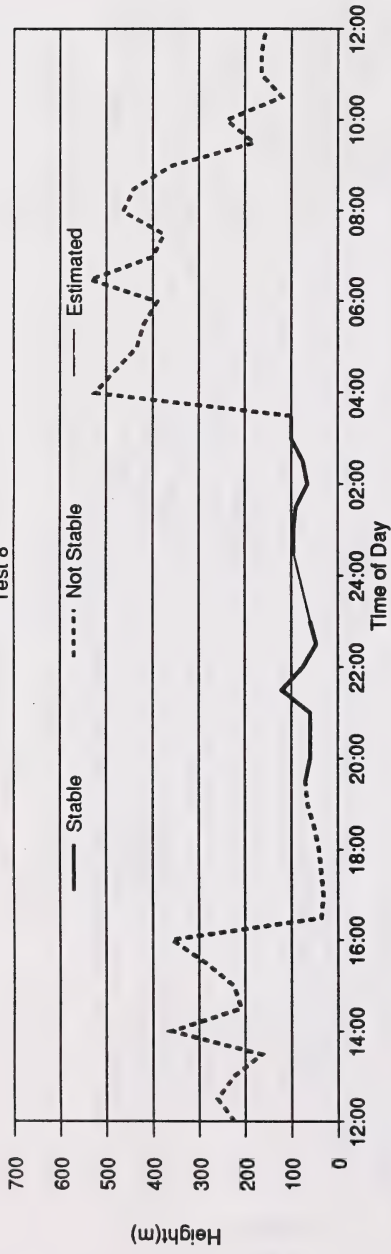
November 7 -8, 1988

Test 7

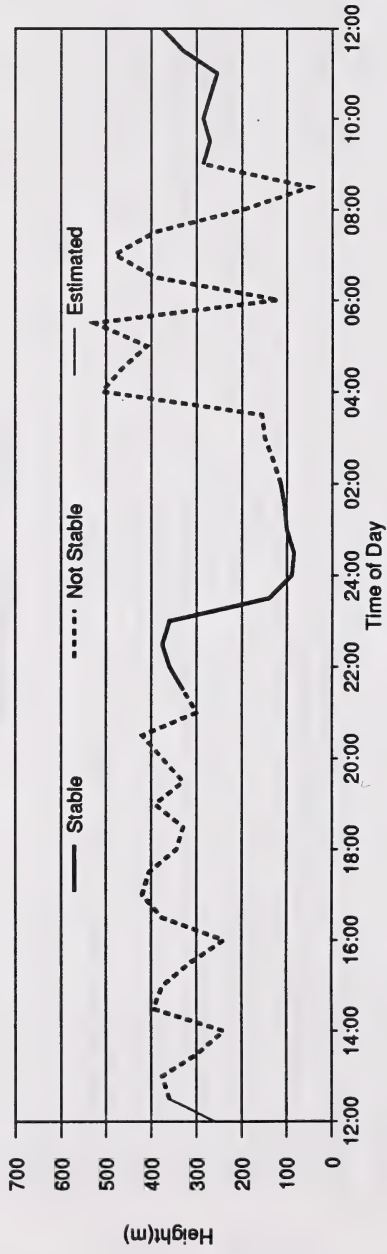


November 8 - 9, 1988

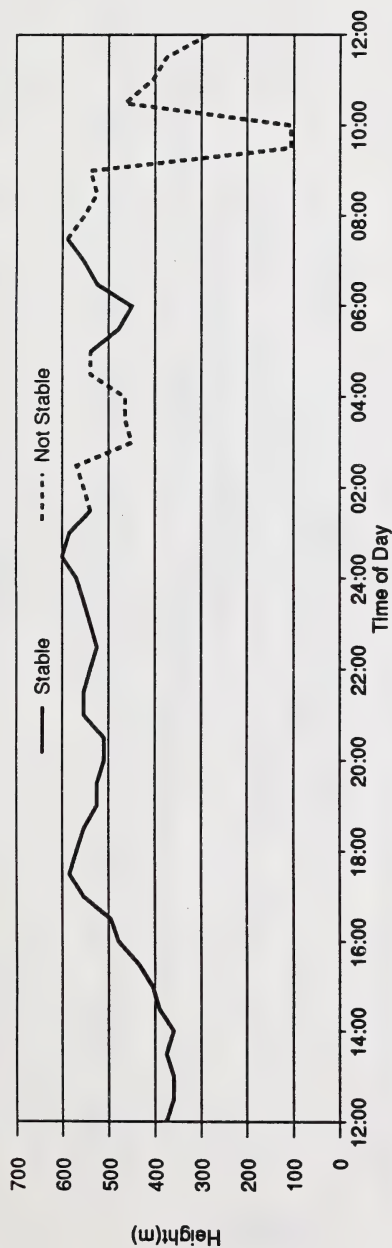
Test 8



November 12 - 13, 1988

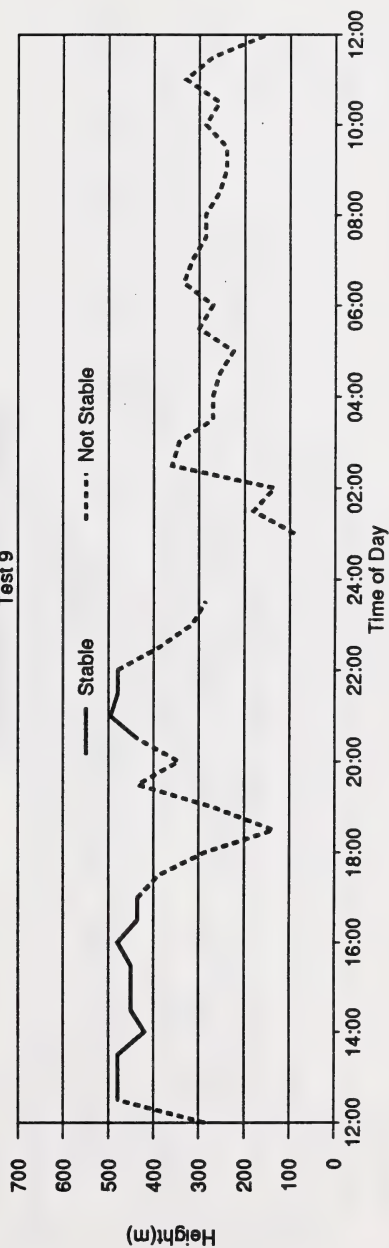


November 13 - 14, 1988



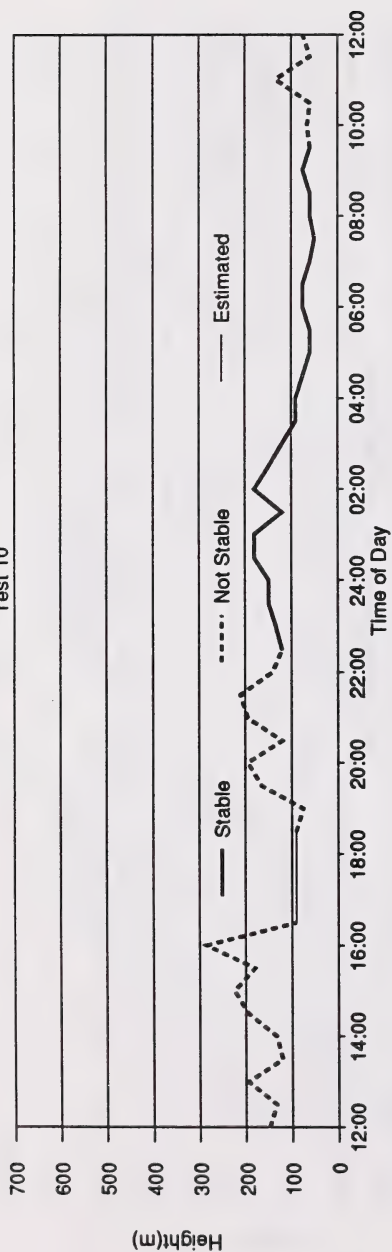
November 14 - 15, 1988

Test 9



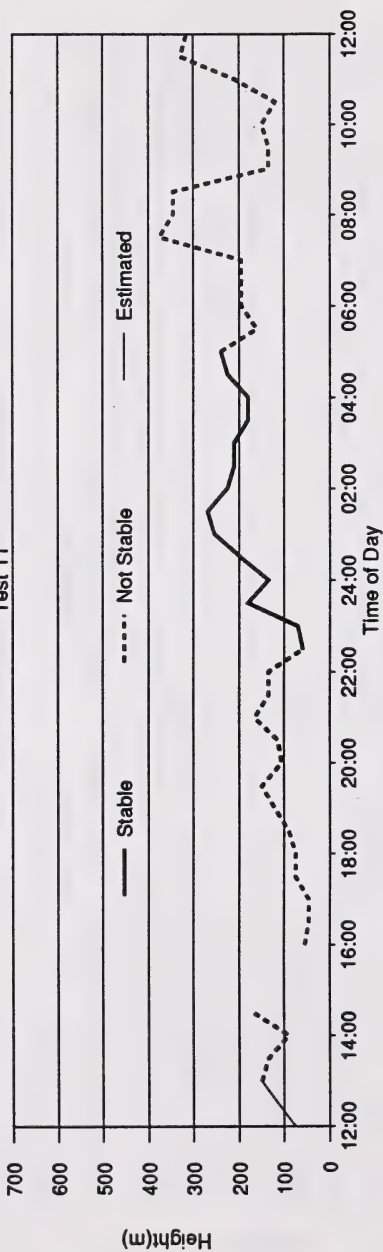
November 15 - 16, 1988

Test 10



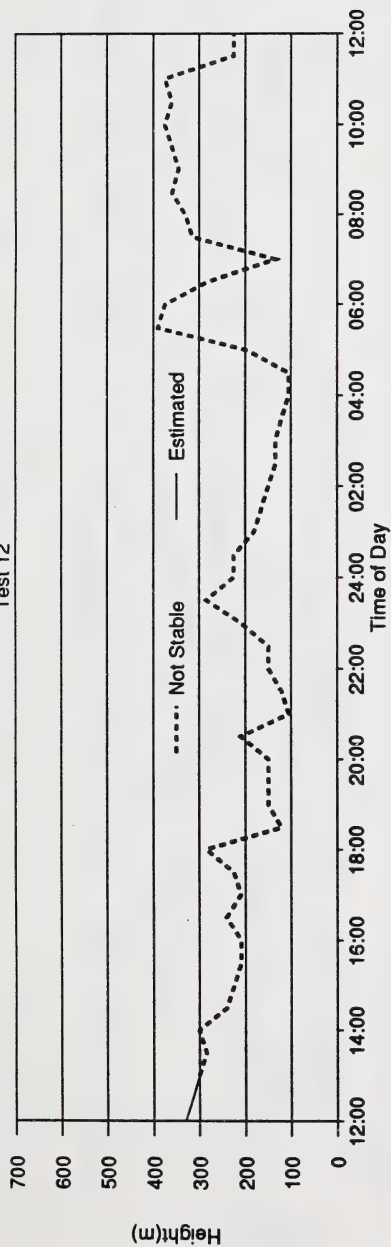
November 16 - 17, 1988

Test 11

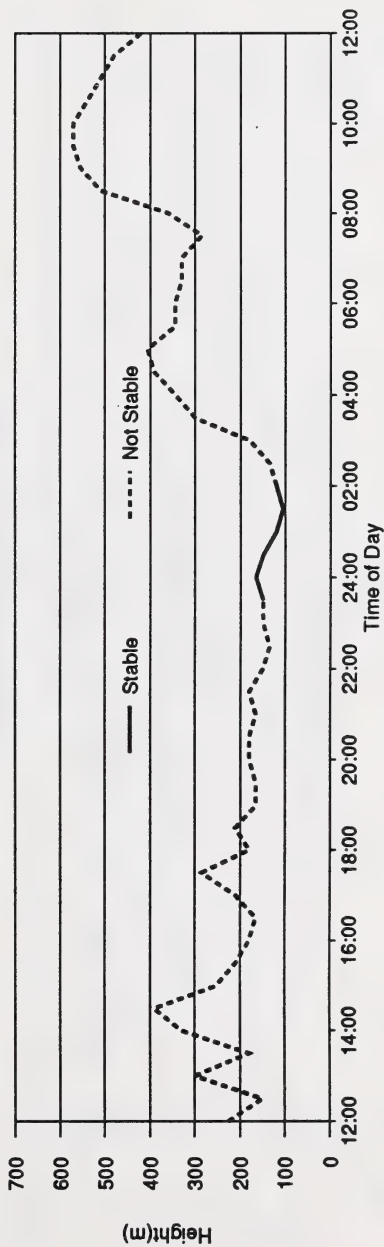


November 18 - 19, 1988

Test 12

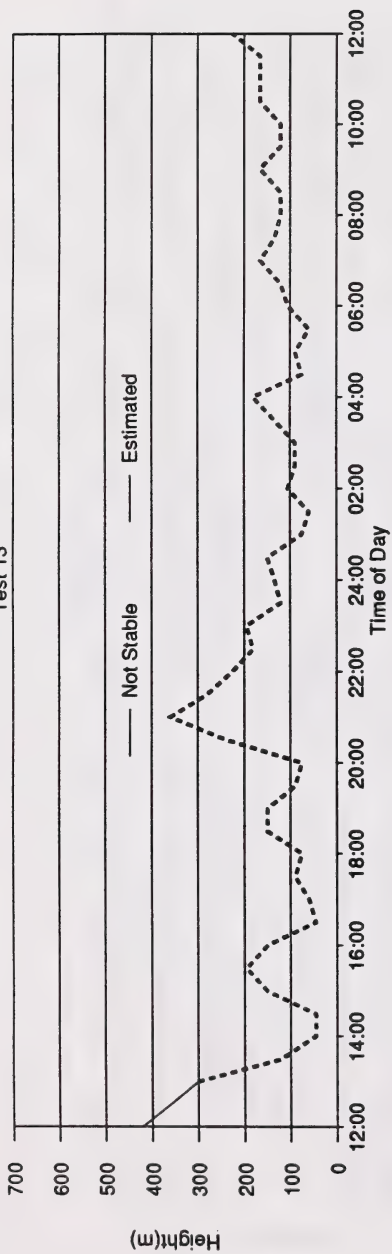


November 19 - 20, 1988

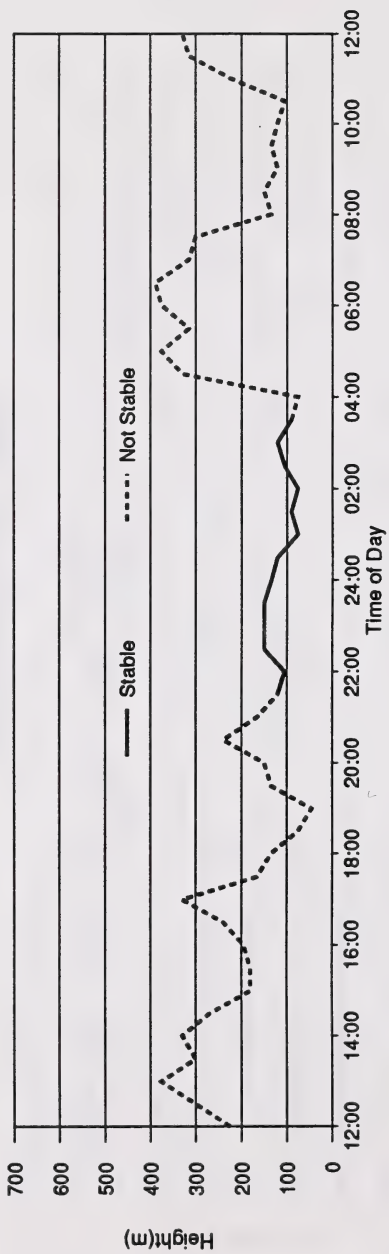


November 20 - 21, 1988

Test 13

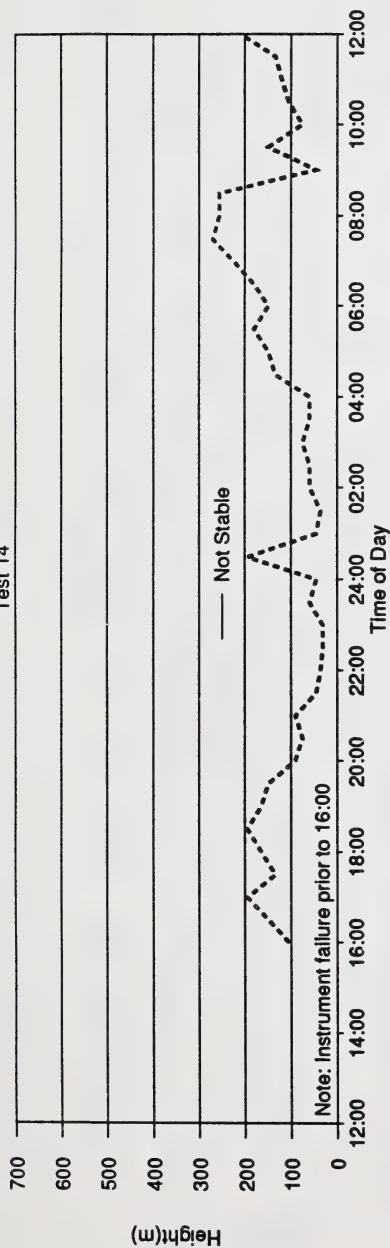


November 21 - 22, 1988



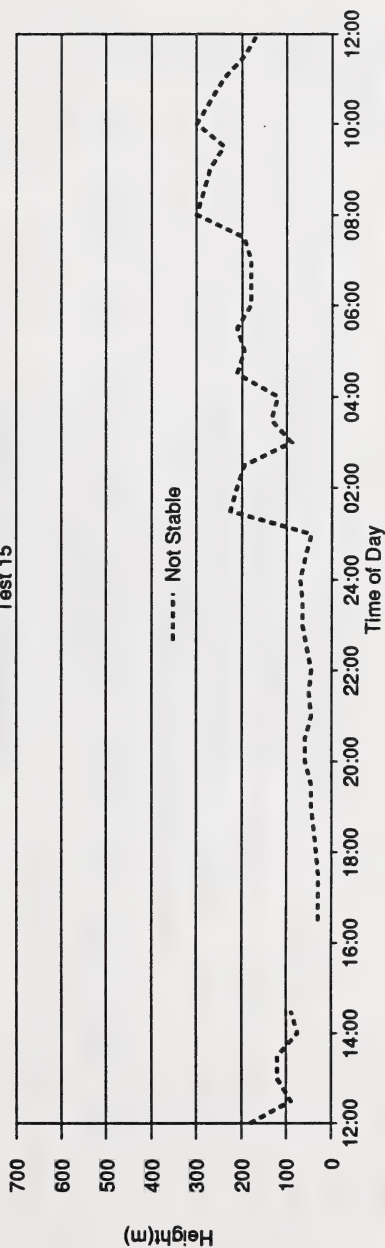
November 24 - 25, 1988

Test 14

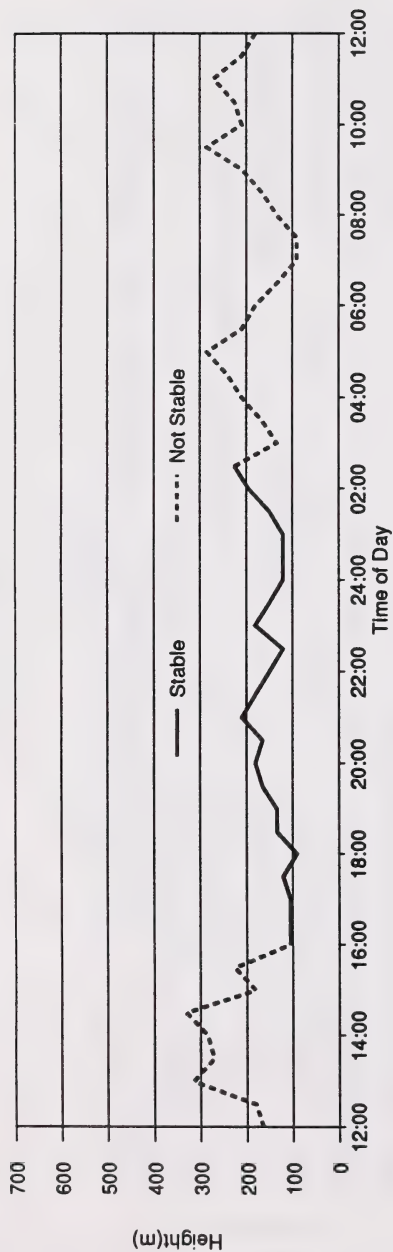


November 26 - 27, 1988

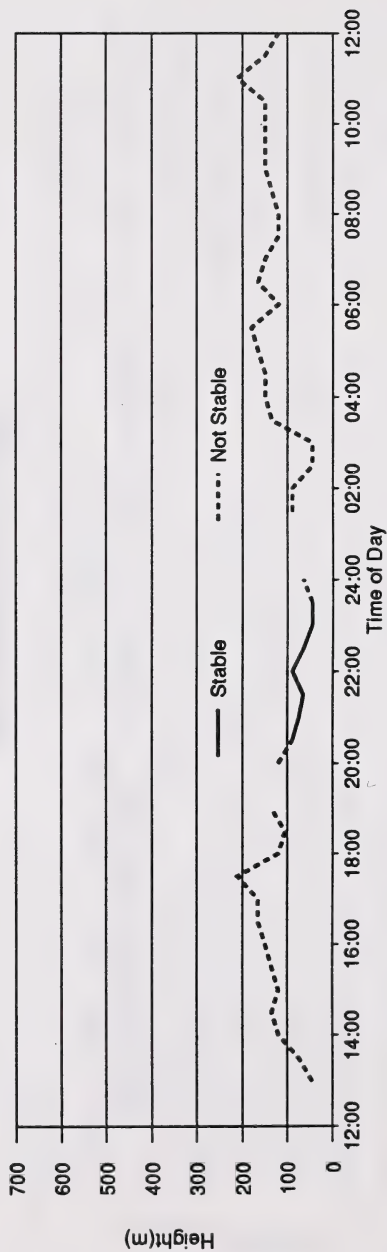
Test 15



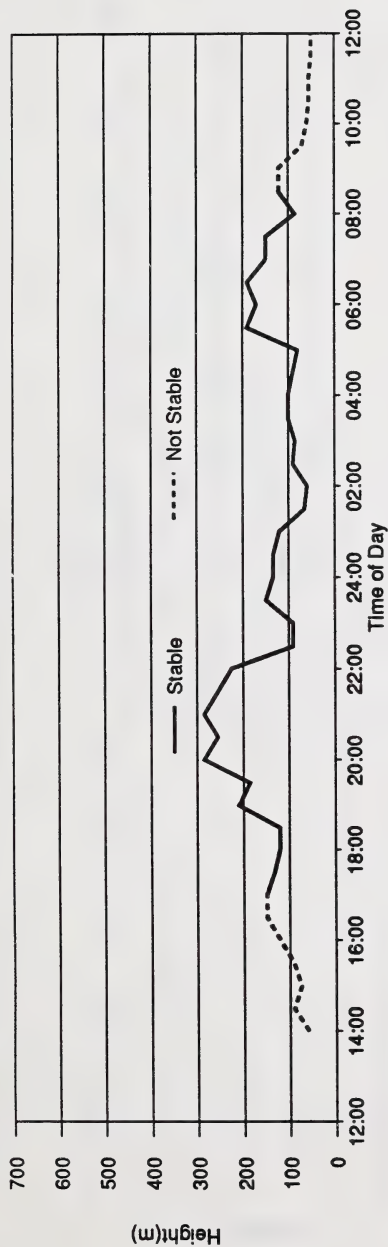
November 27 - 28, 1988



November 28 - 29, 1988

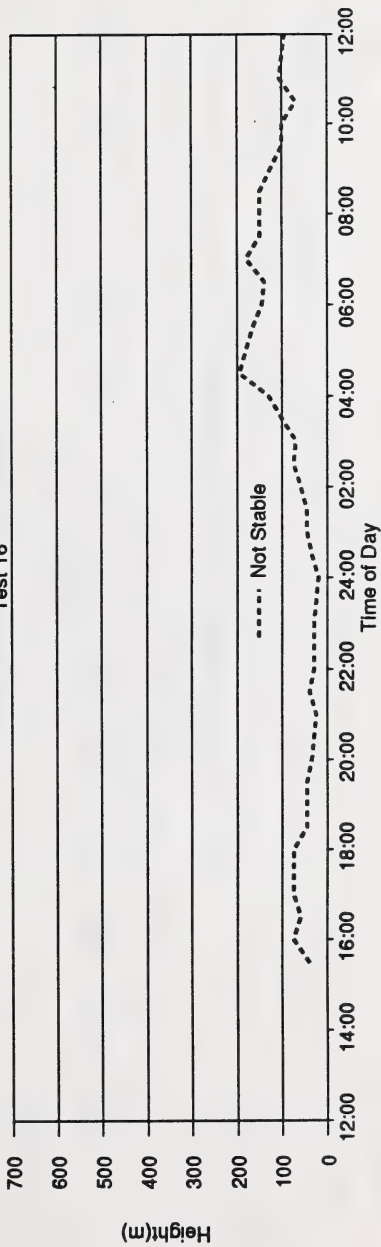


November 29 - 30, 1988



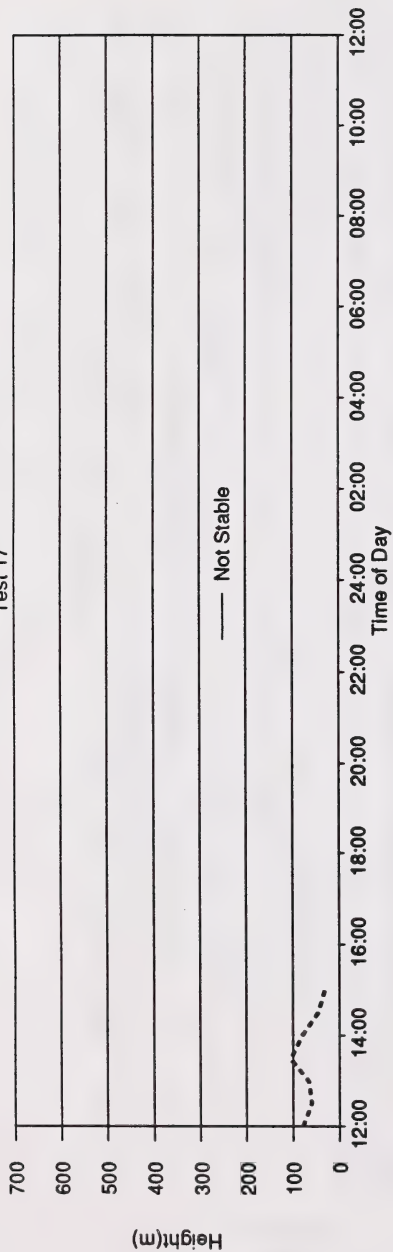
December 2 - 3, 1988

Test 16



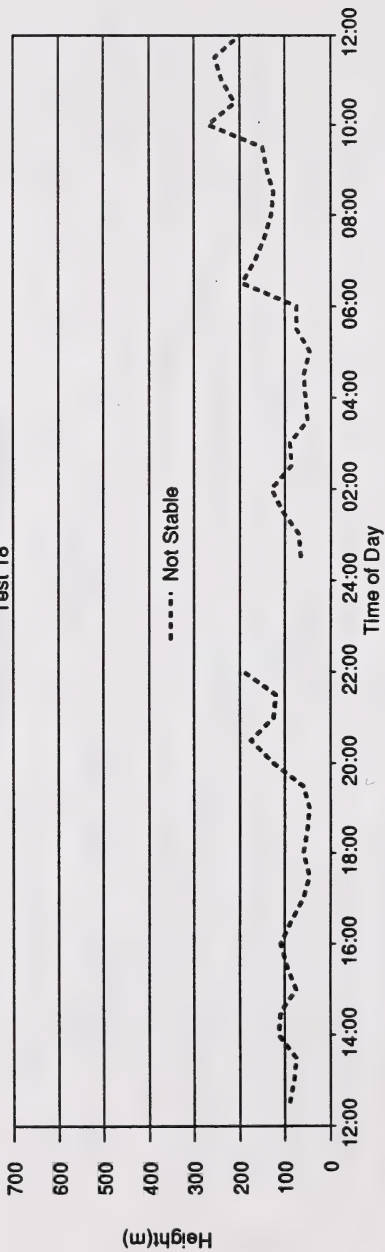
December 6 - 7, 1988

Test 17



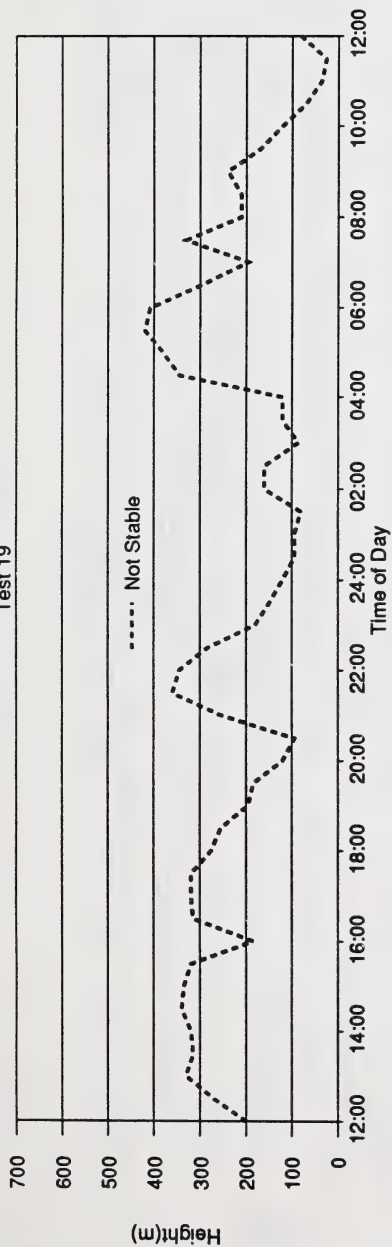
December 7 - 8, 1988

Test 18



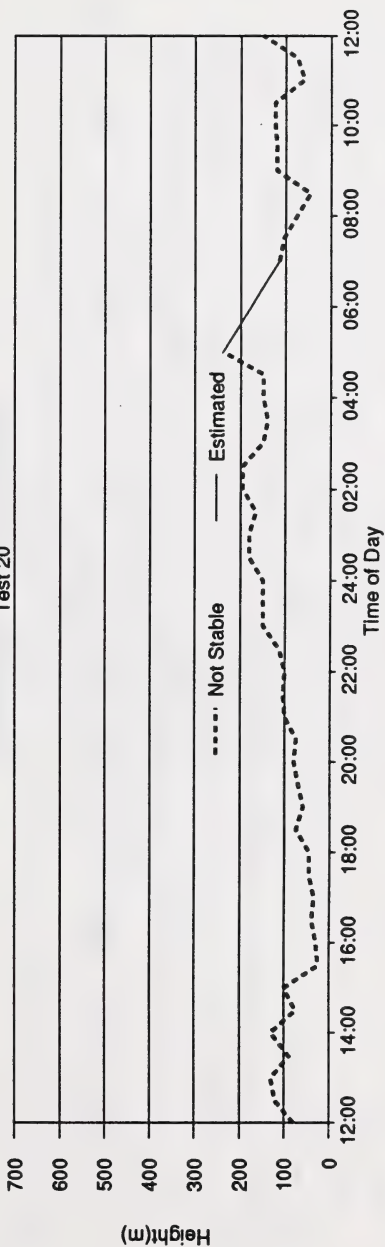
December 8 - 9, 1988

Test 19



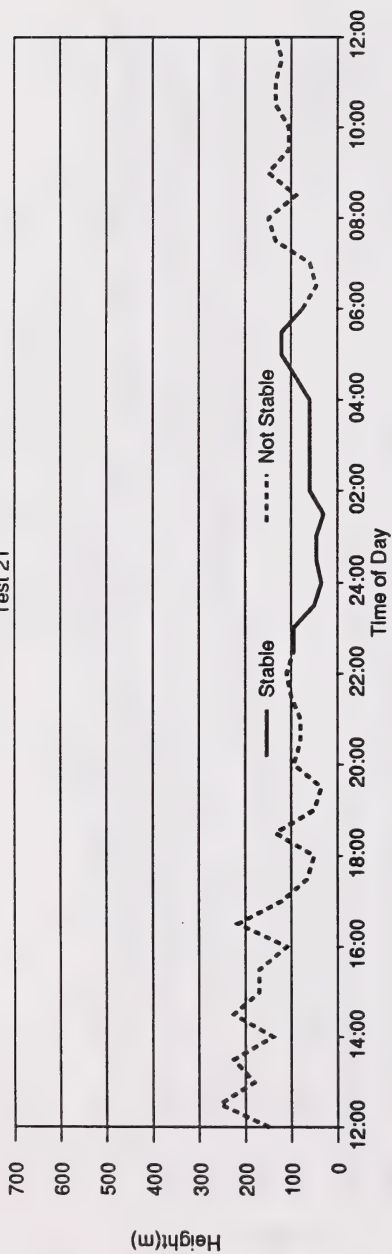
December 9 - 10, 1988

Test 20



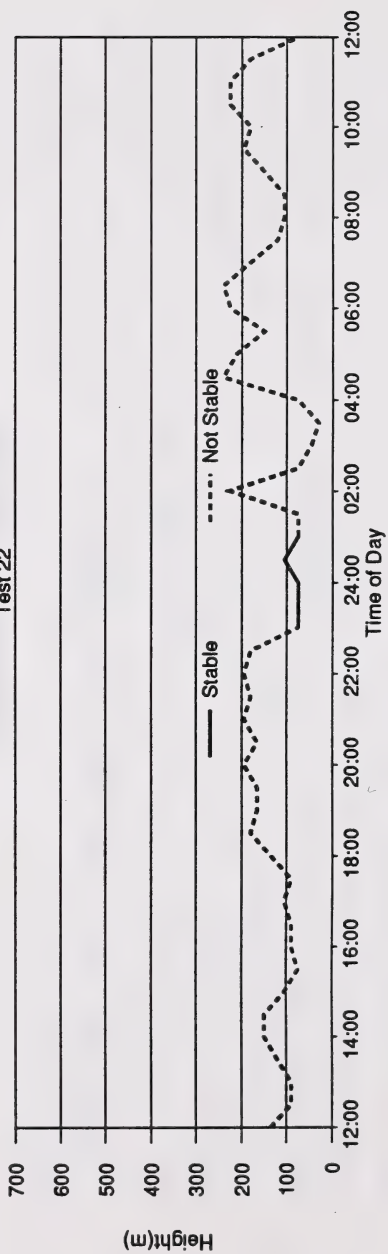
December 10 - 11, 1988

Test 21



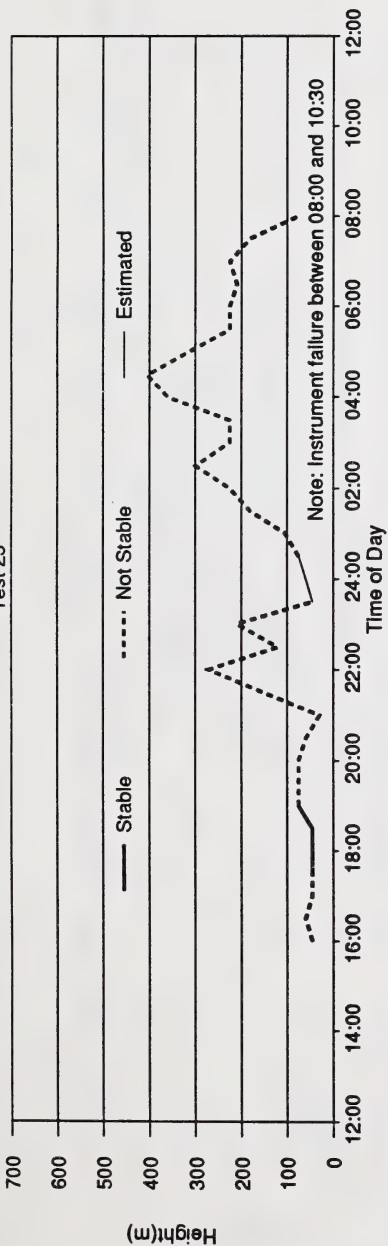
December 11 - 12, 1988

Test 22



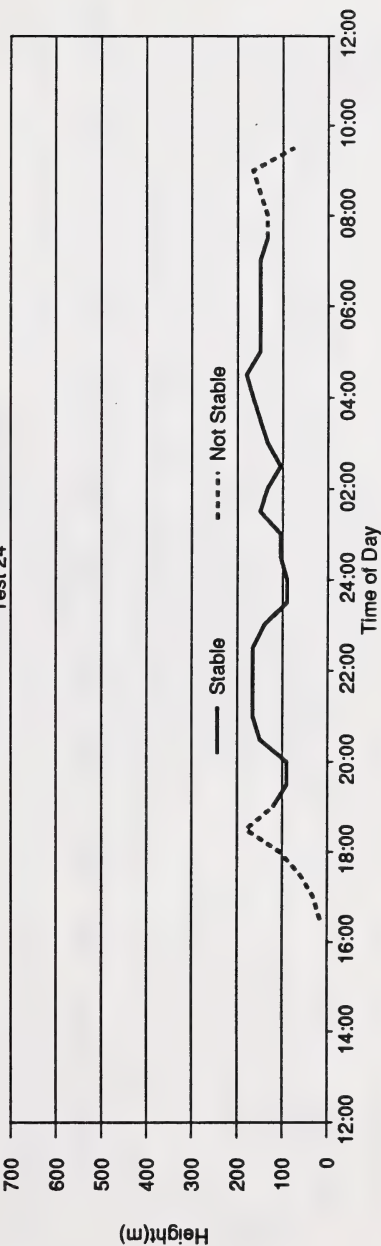
December 12 - 13, 1988

Test 23



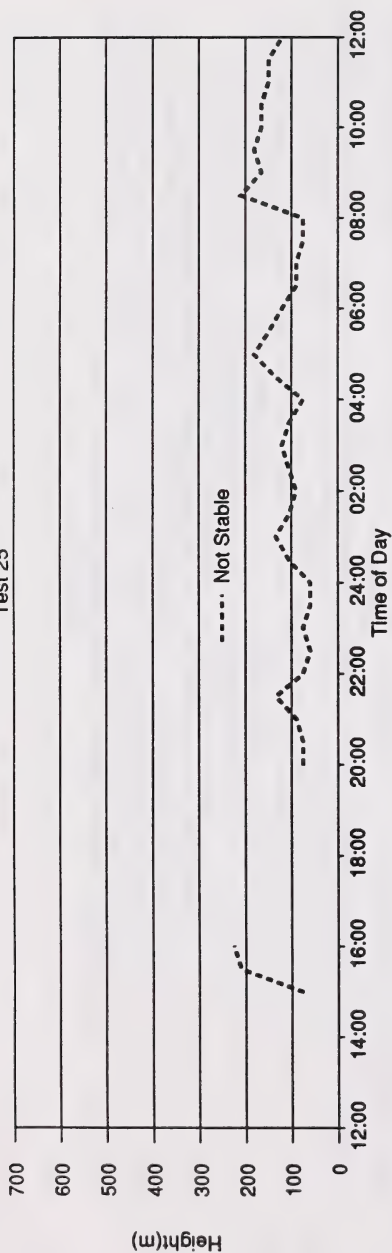
December 13 - 14, 1988

Test 24



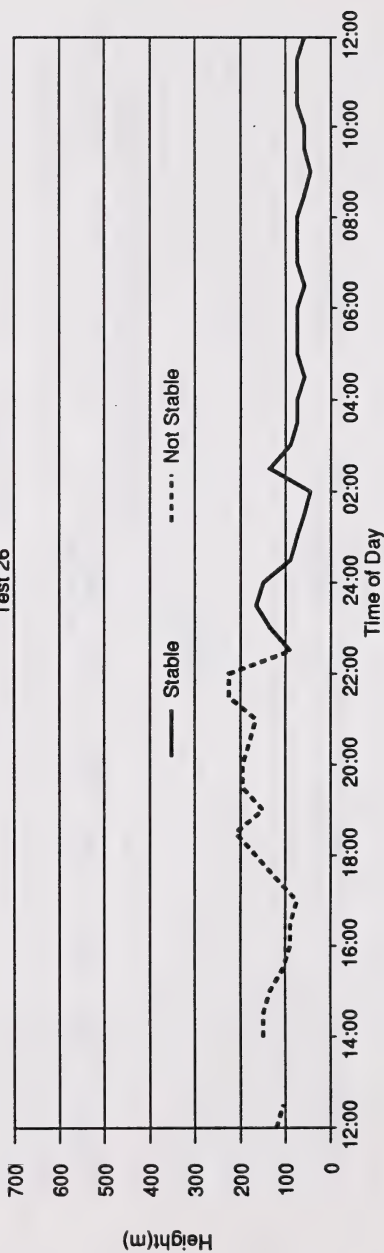
December 14 - 15, 1988

Test 25



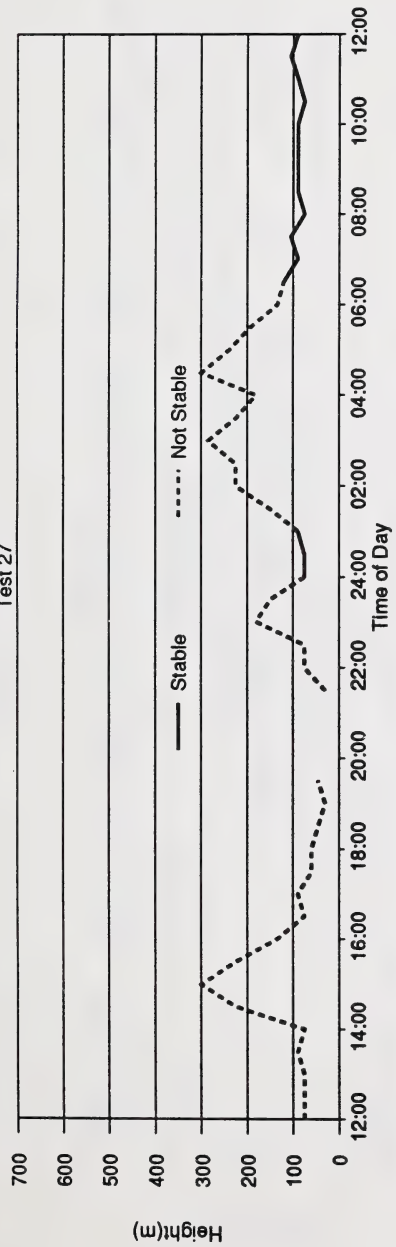
December 15 - 16, 1988

Test 26



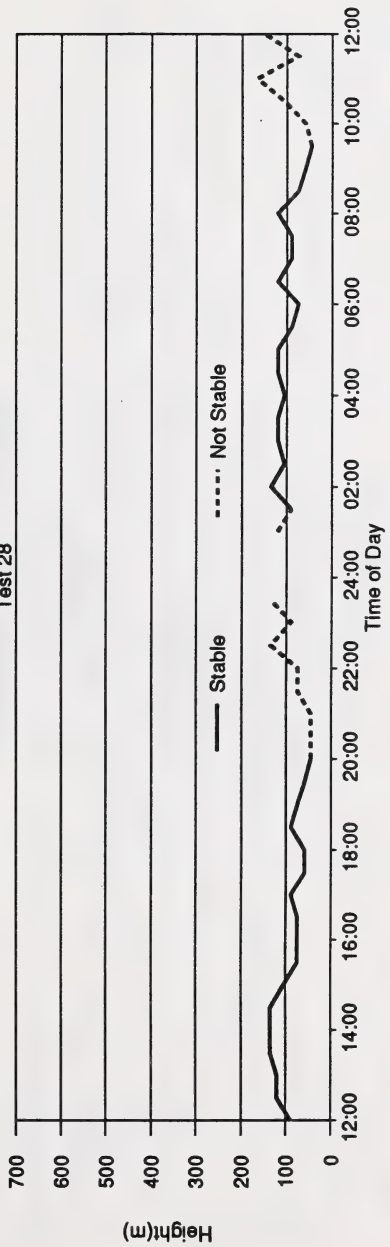
December 16 - 17, 1988

Test 27



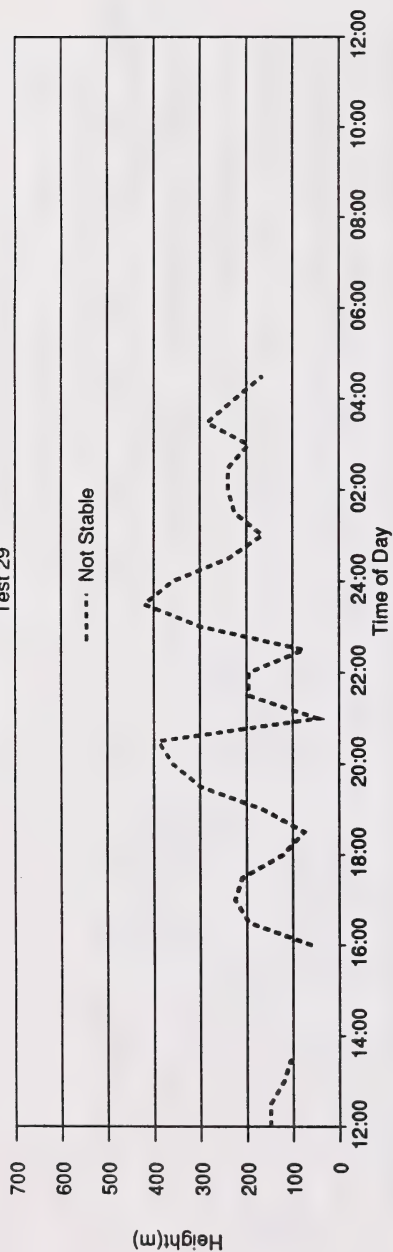
December 17 - 18, 1988

Test 28



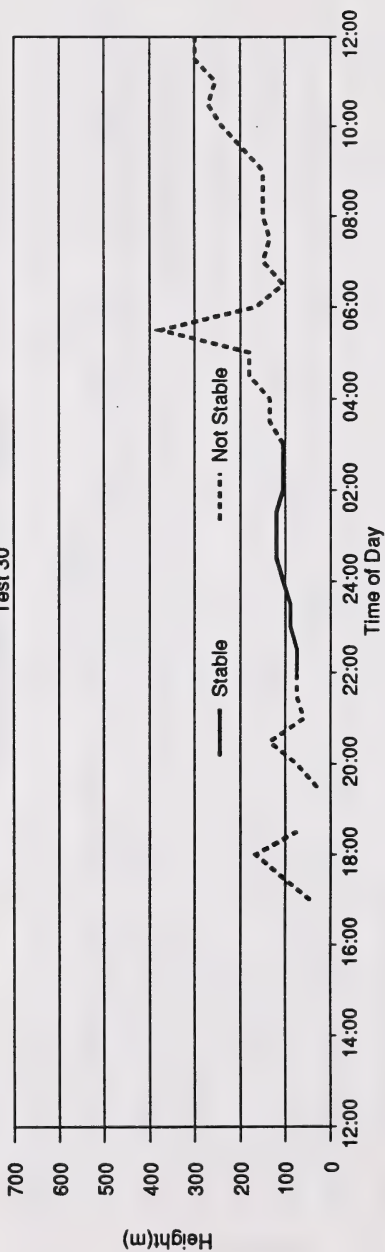
December 18 - 19, 1988

Test 29



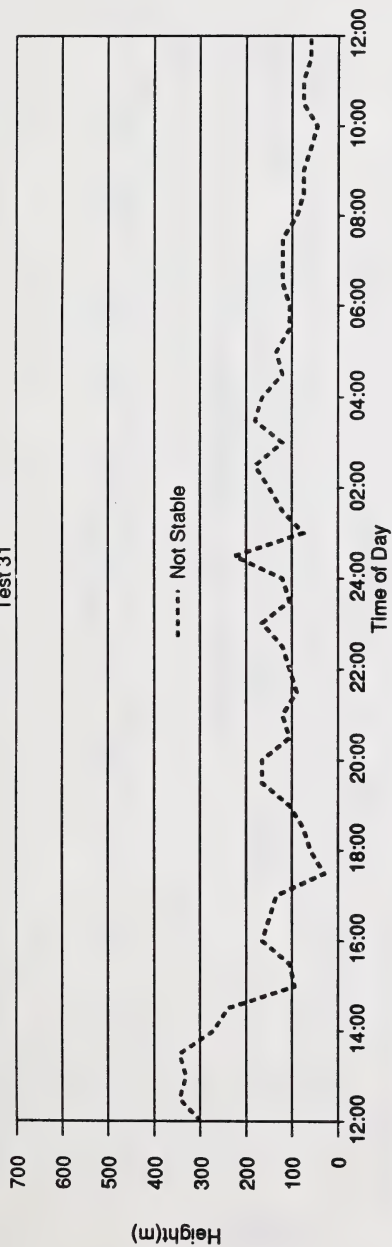
December 19 - 20, 1988

Test 30



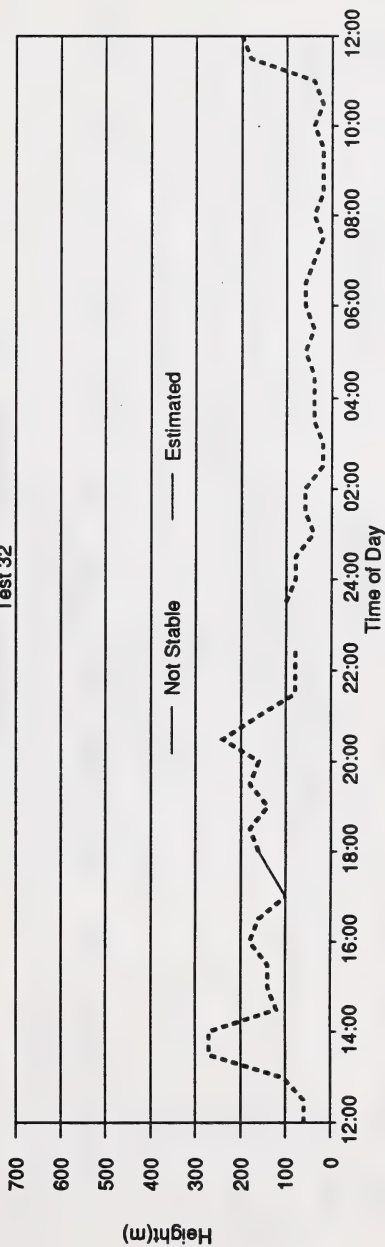
December 20 - 21, 1988

Test 31



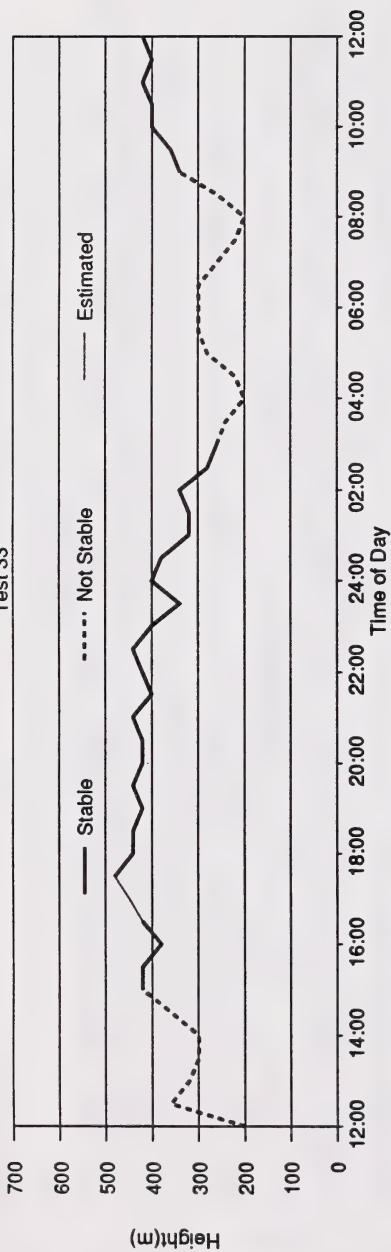
December 21 - 22, 1988

Test 32

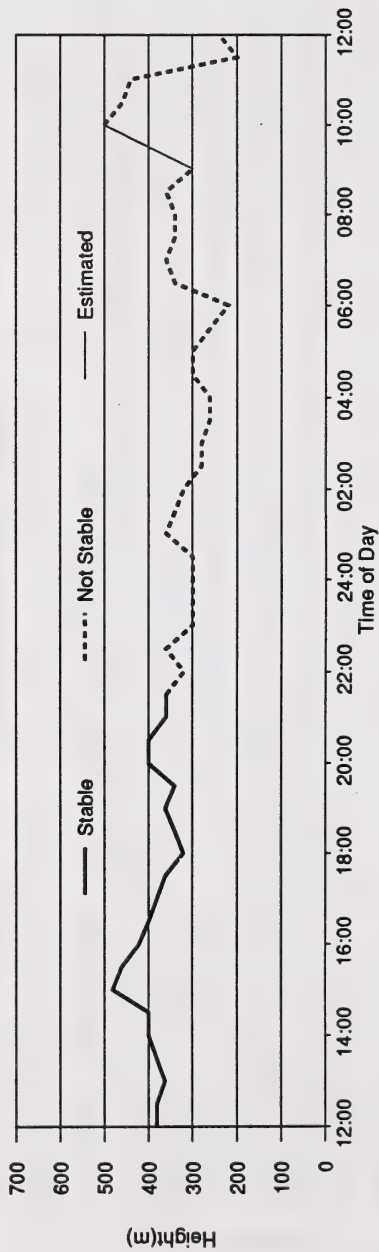


December 22 - 23, 1988

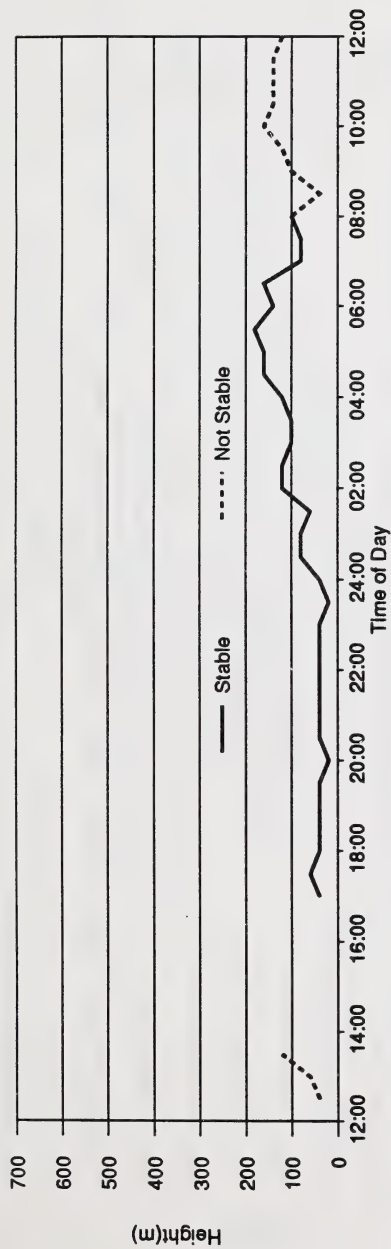
Test 33



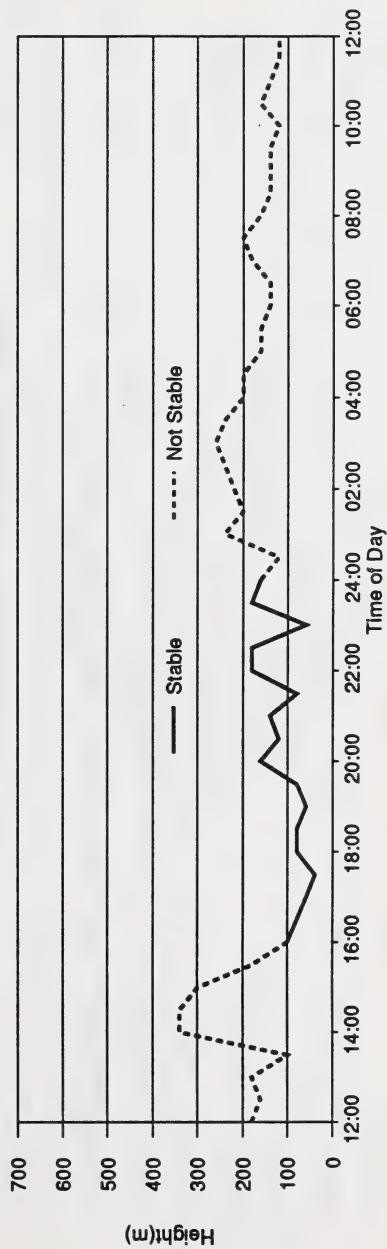
December 23 - 24, 1988



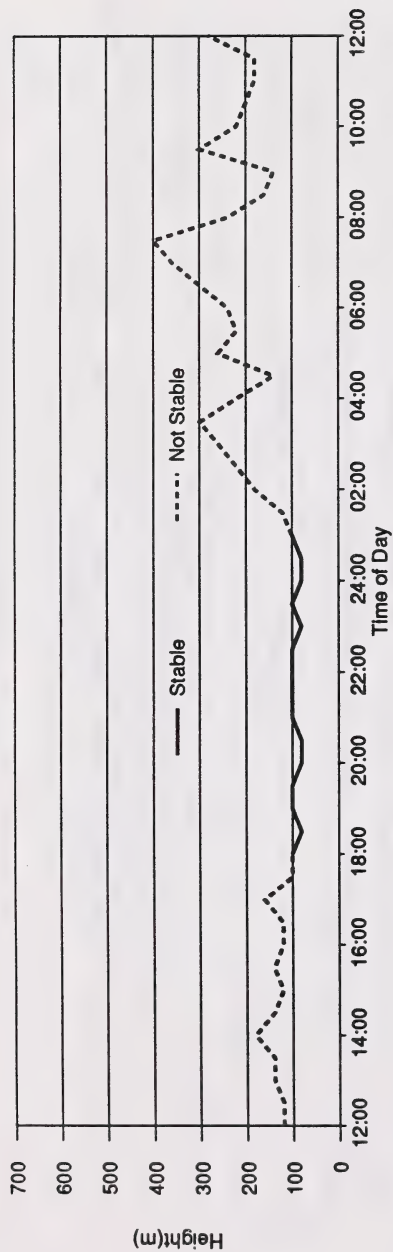
December 25 - 26, 1988



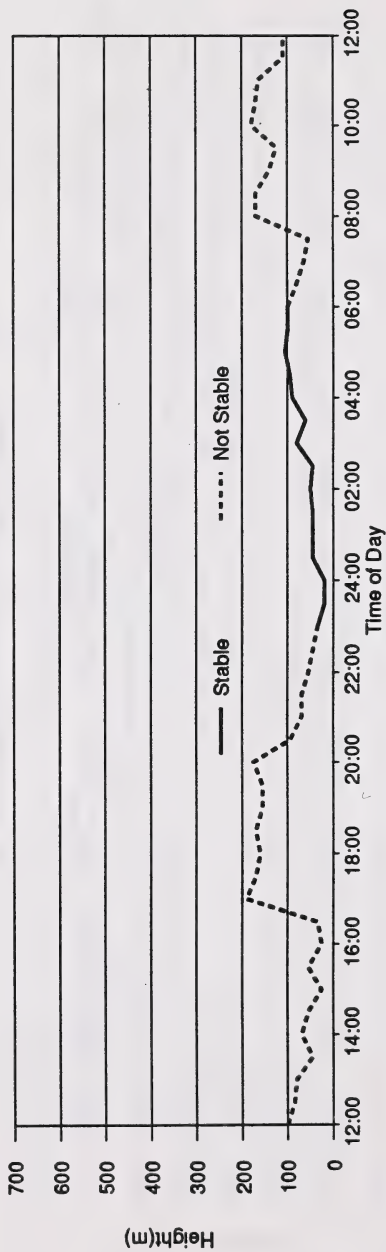
December 28 - 29, 1988



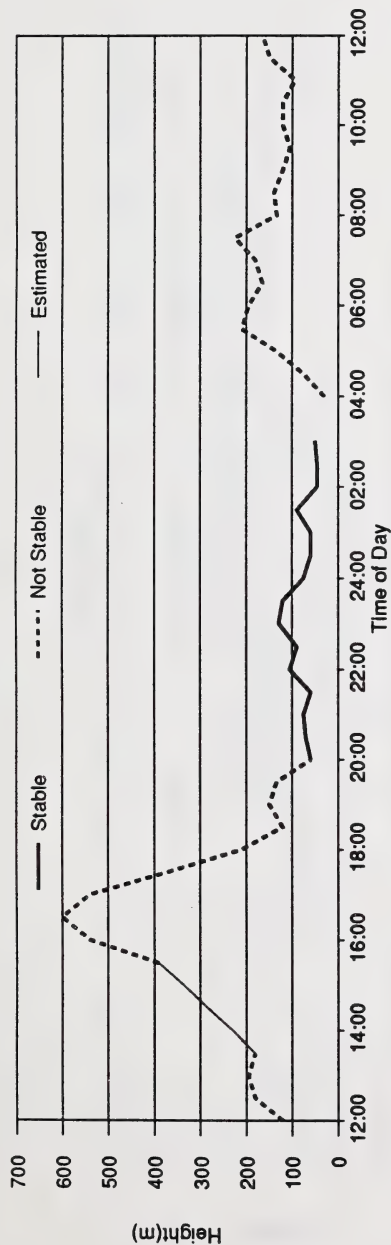
December 29 - 30, 1988



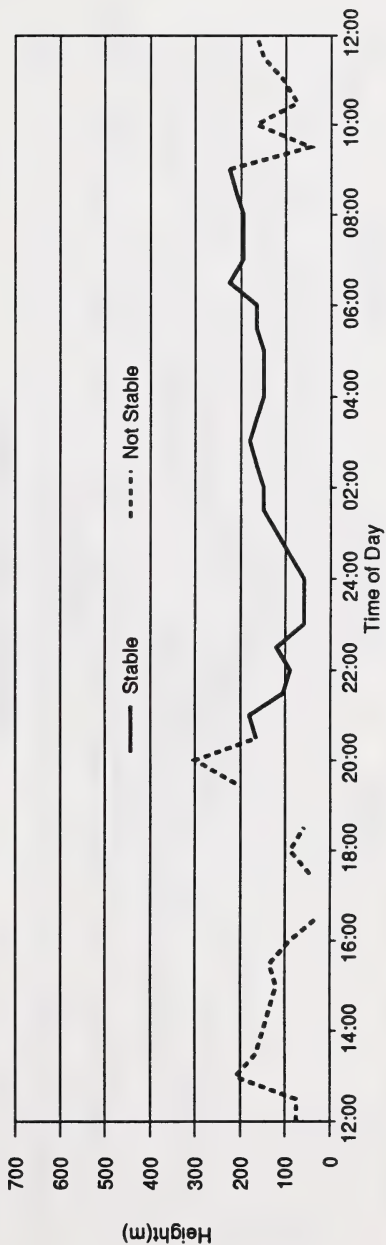
December 31, 1988 - January 01, 1989



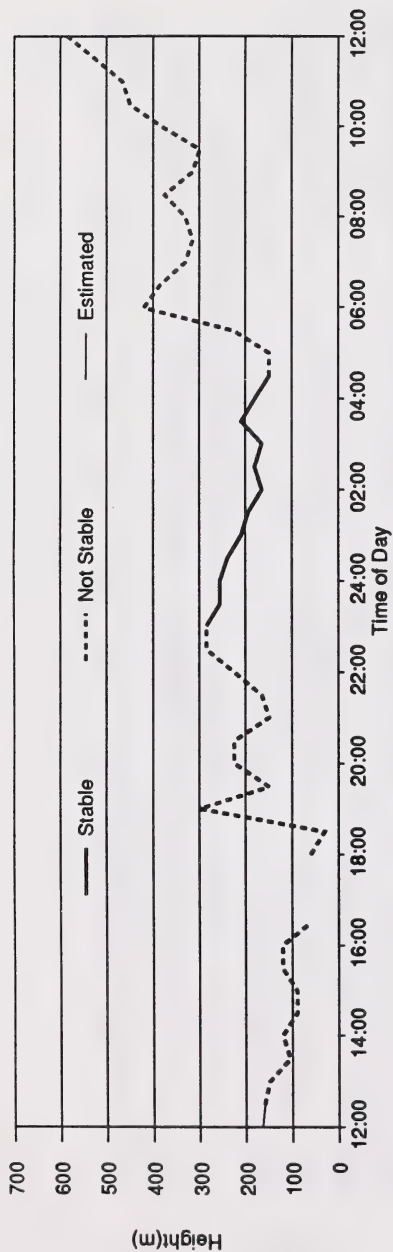
January 18 - 19, 1989



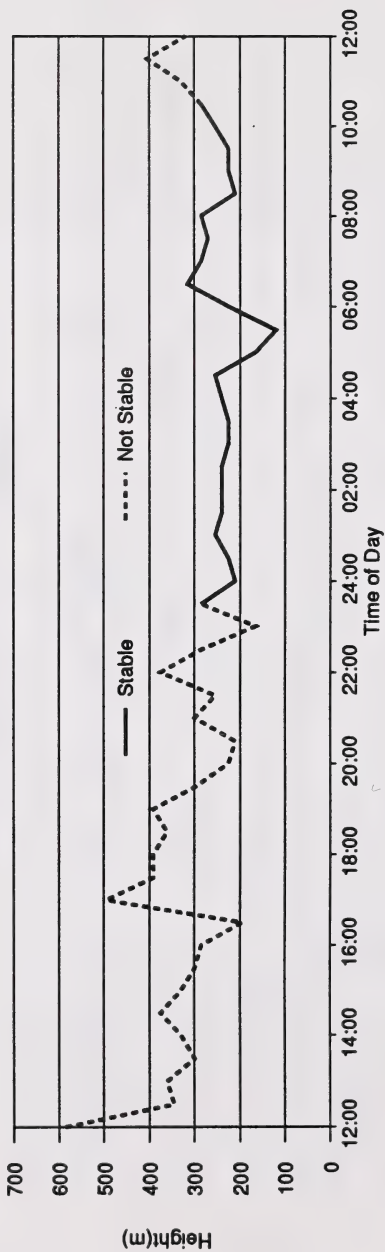
February 1 - 2, 1989



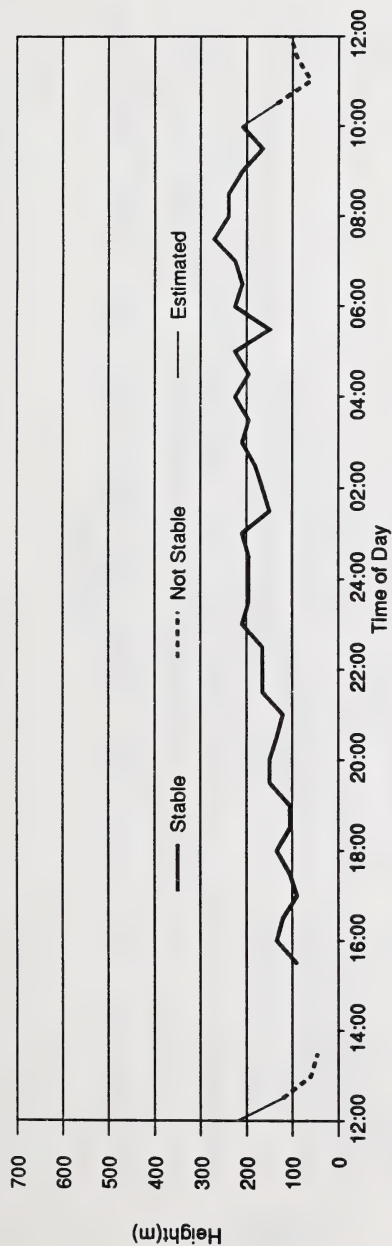
February 2 - 3, 1989



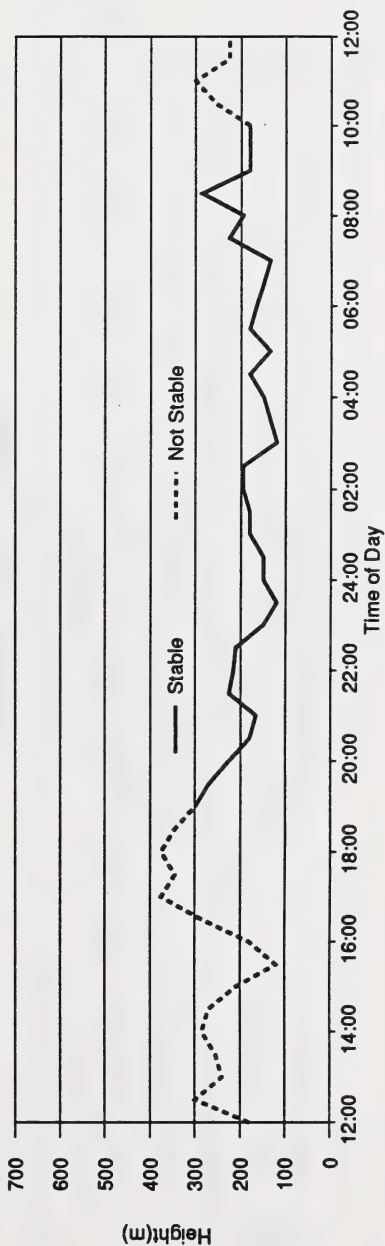
February 3 - 4, 1989



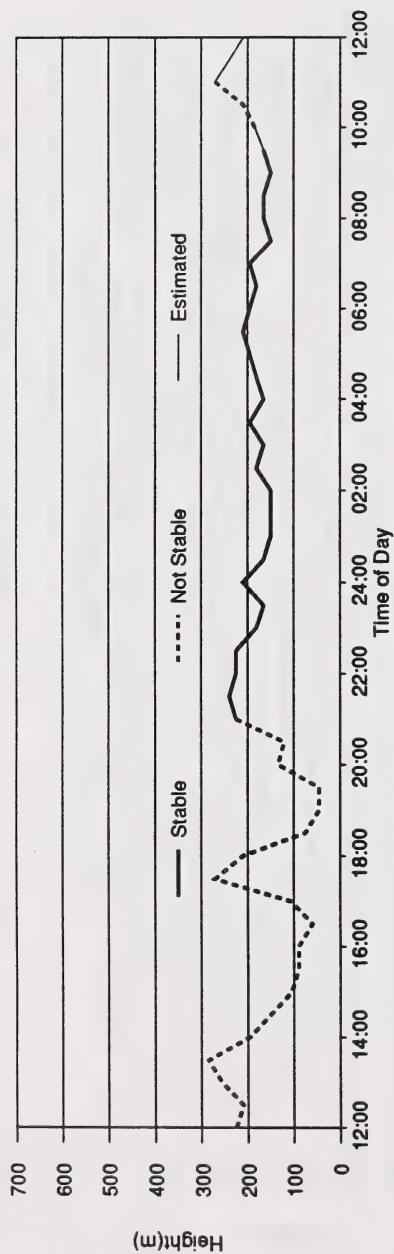
February 6 - 7, 1989



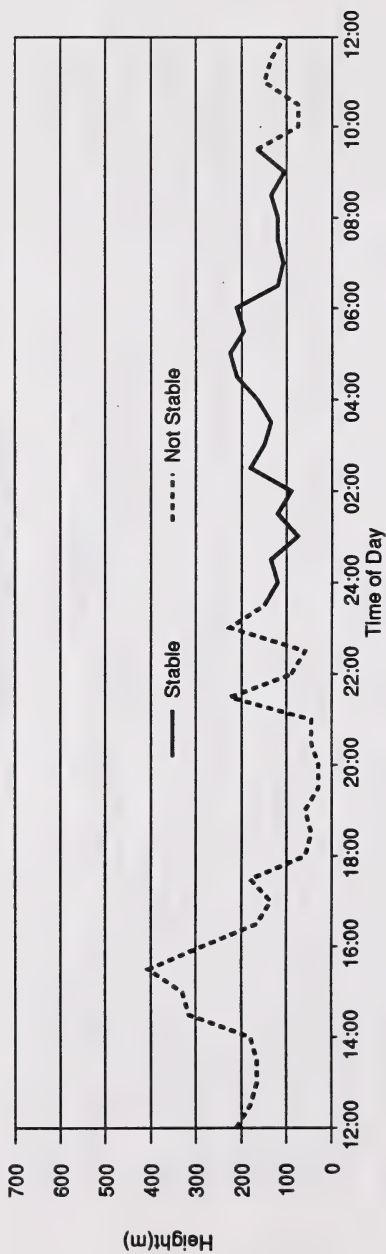
February 8 - 9, 1989



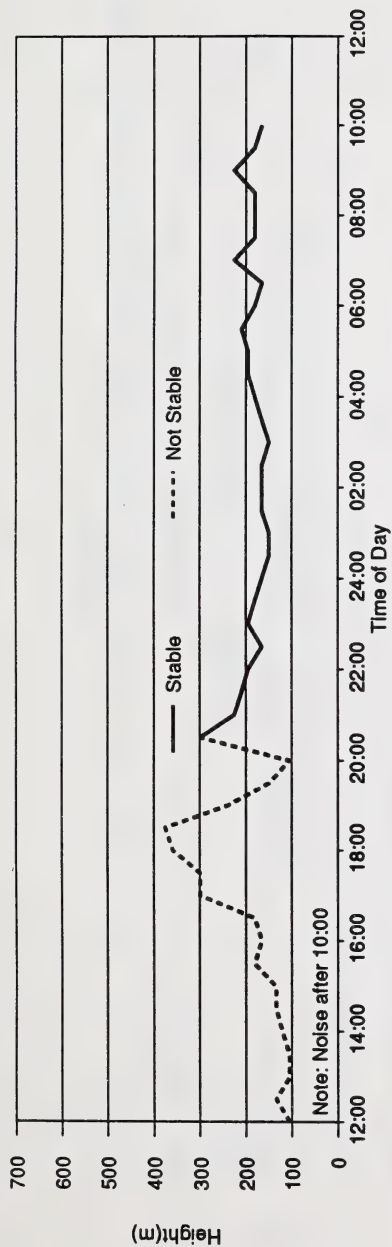
February 9 - 10, 1989



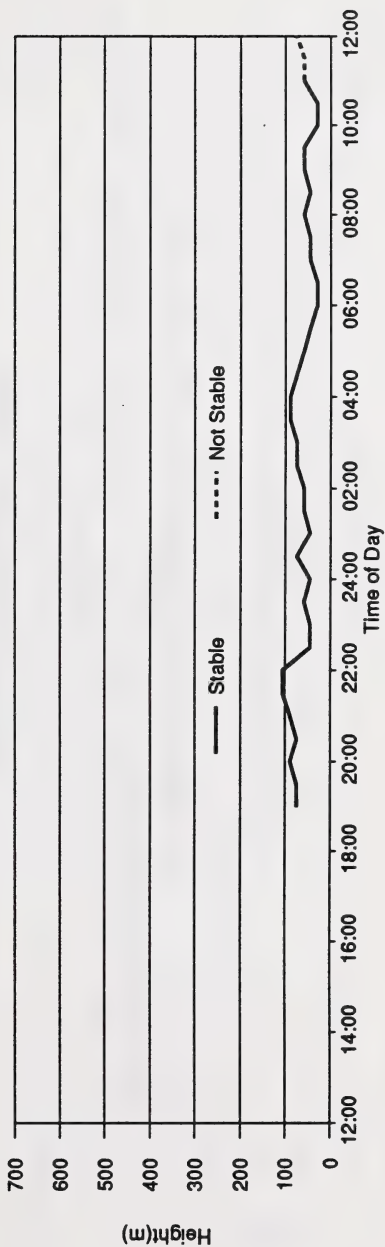
February 10 - 11, 1989



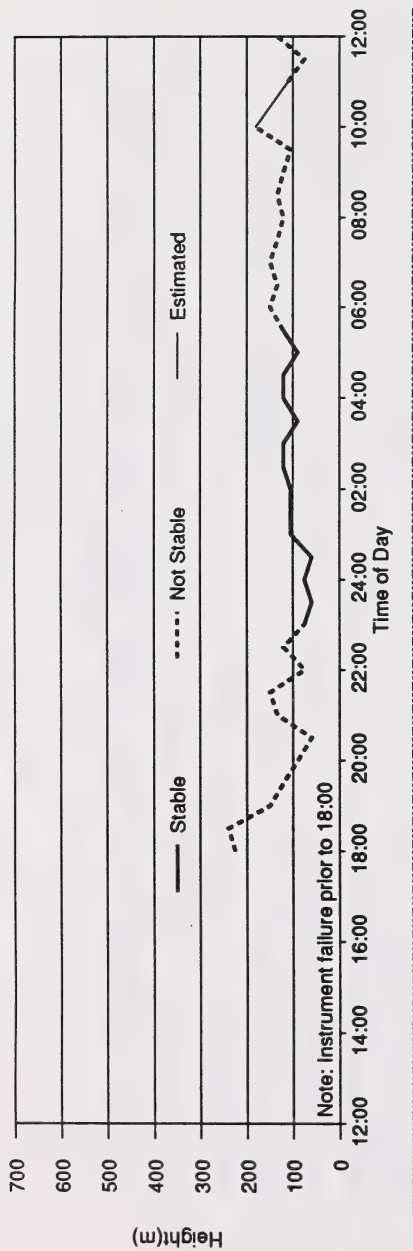
February 11 - 12, 1989



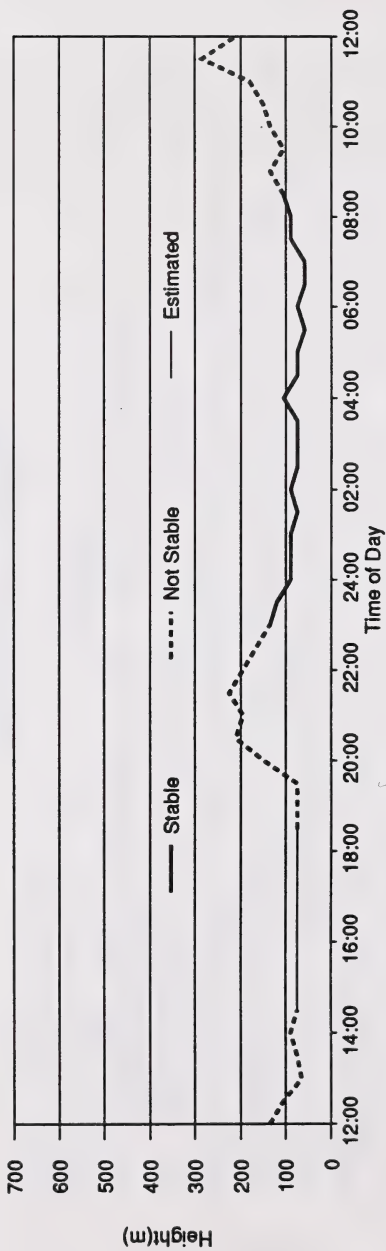
February 20 - 21, 1989



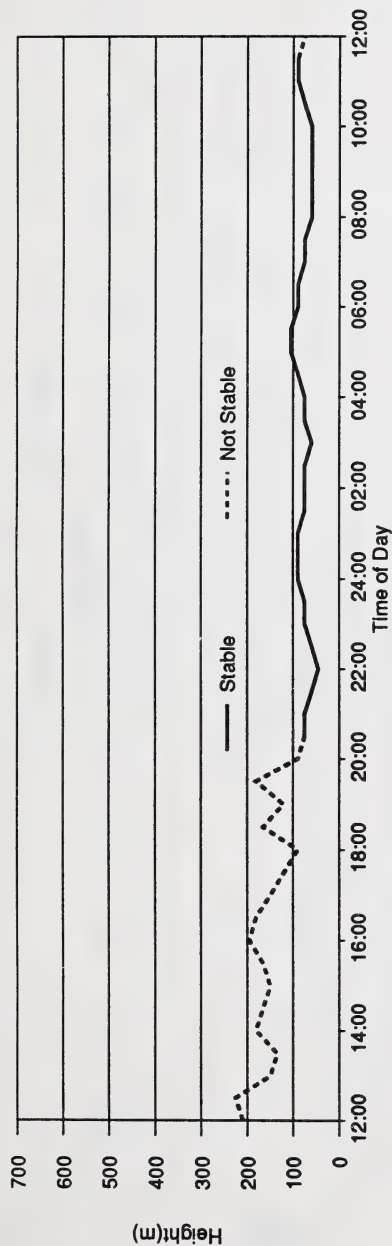
February 27 - 28, 1989



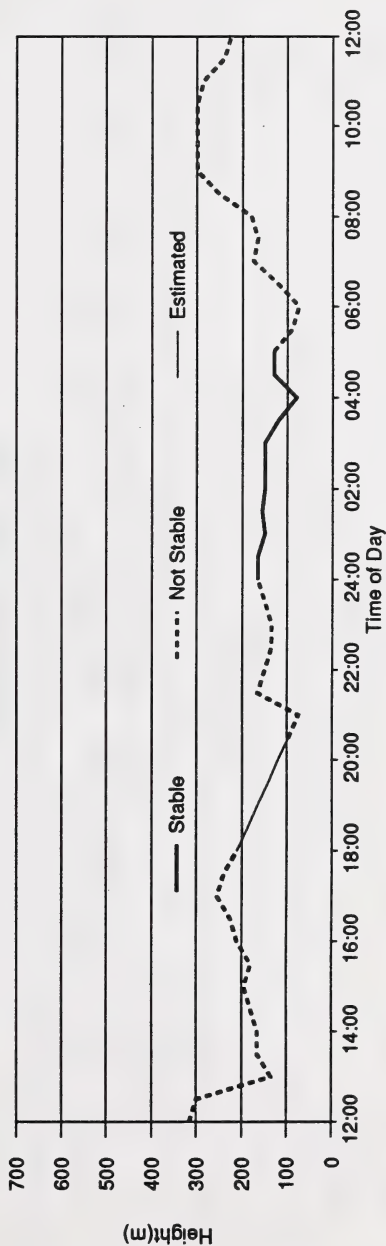
February 28 - March 1, 1989



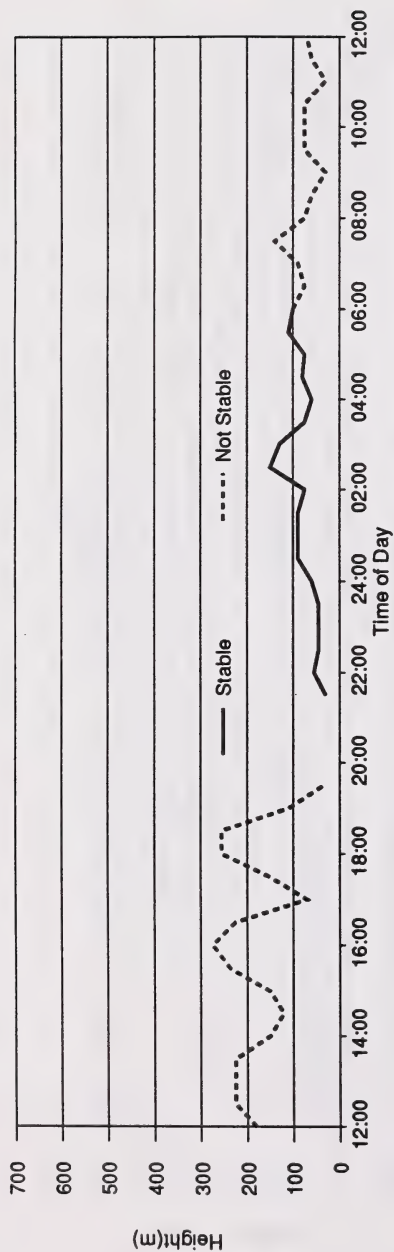
March 1 - 2, 1989



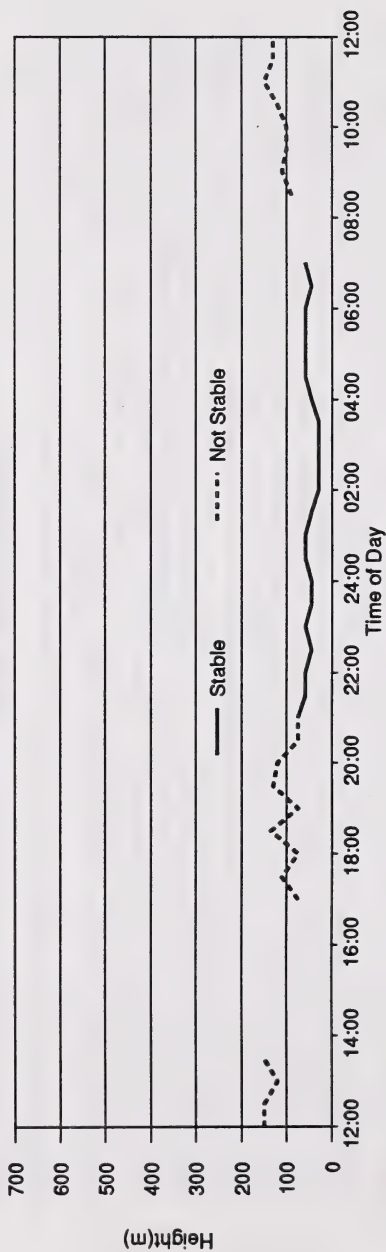
March 4 - 5, 1989



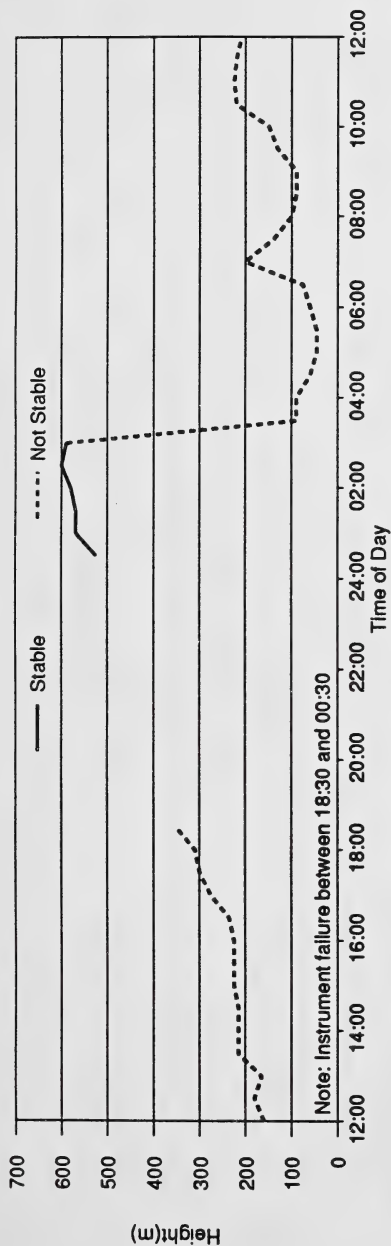
March 12 - 13, 1989



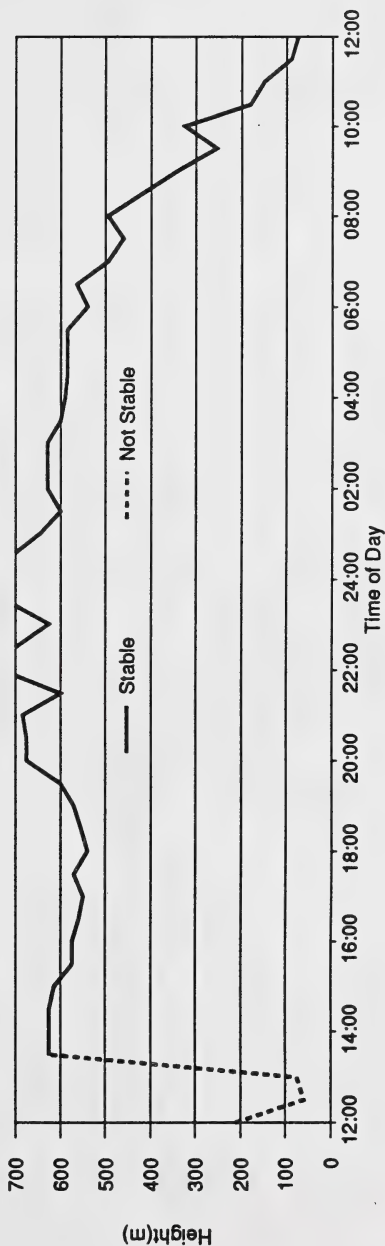
March 17 - 18, 1989



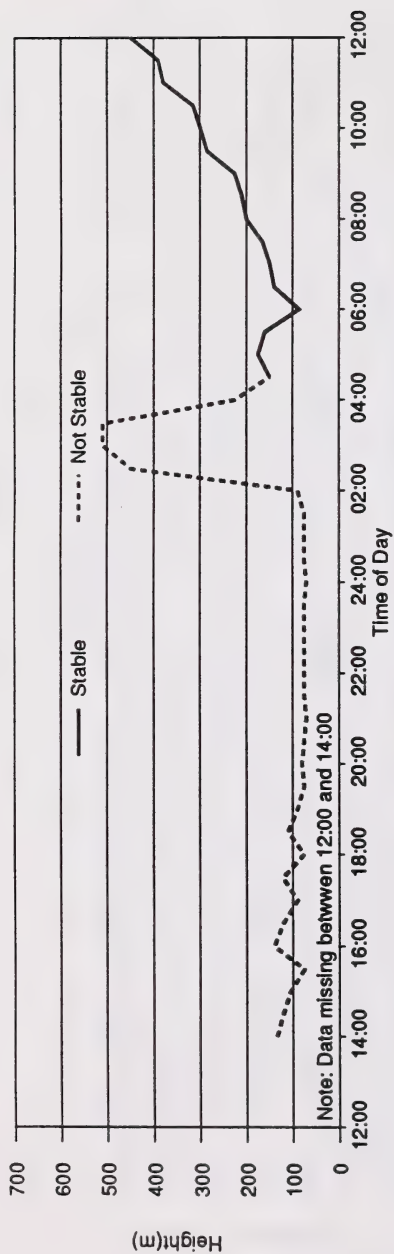
March 25 - 26, 1989



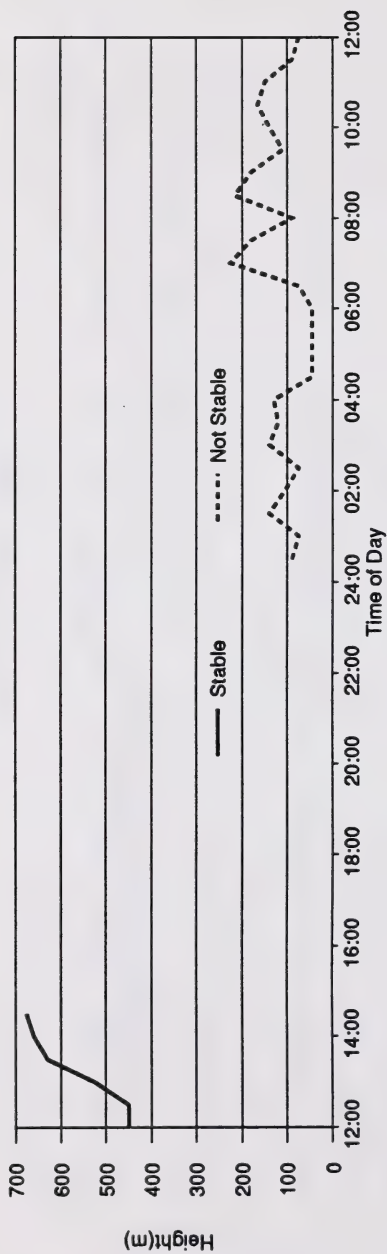
March 26 - 27, 1989



March 27 - 28, 1989



March 28 - 29, 1989



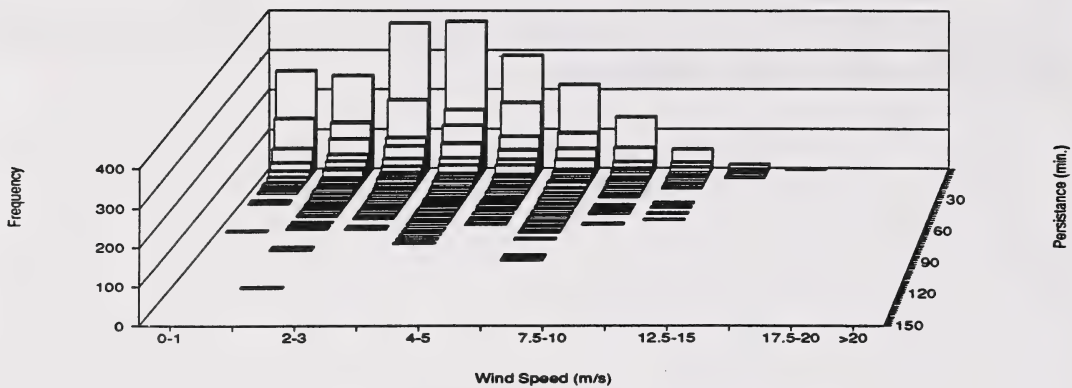
Appendix D3

Three-Dimensional Persistence Plots

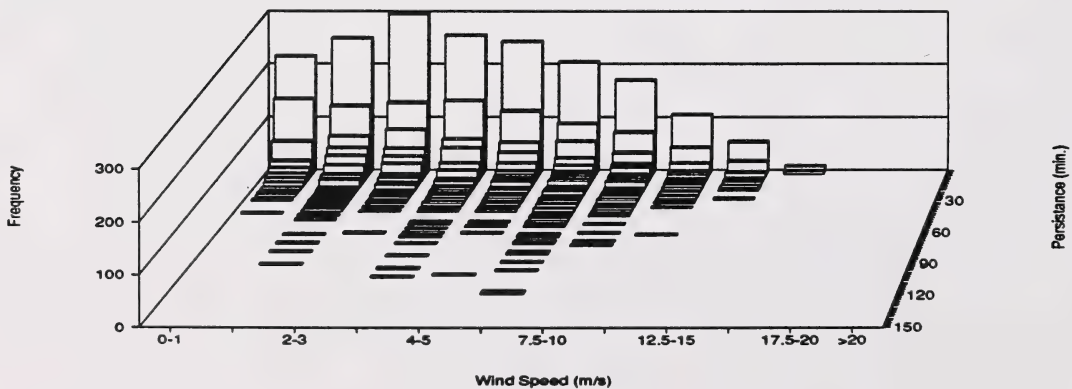
Three-Dimensional Persistence Plots

On the following pages are 3-dimensional plots depicting persistence data. The first 6 pages (D-104 to D-109) show ADRP data with one month from two consecutive years shown on each page. The next 6 pages (D-110 to D-113) show data from the Kathryn site for 4 and 10 m wind speeds.

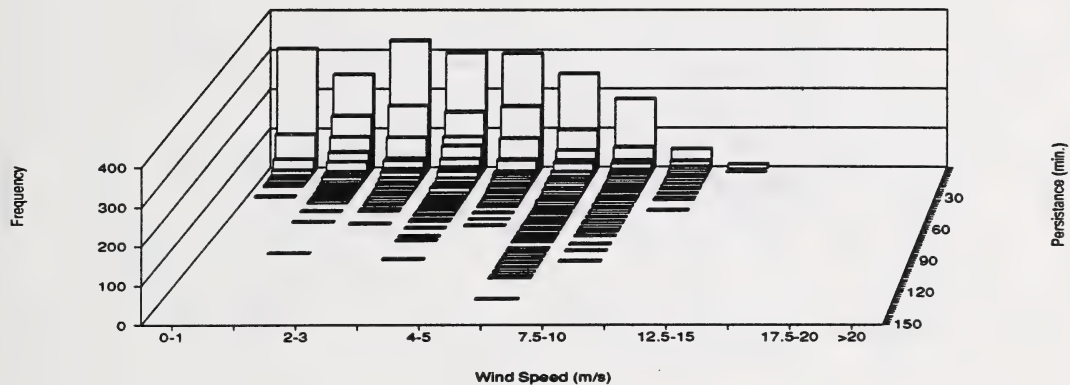
These 3-dimensional plots will require some explanation. The x axis is wind speed and the y axis is frequency. The z axis (into the page) represents persistence in minutes. Note the scale starts in the page and comes forward as time increases.



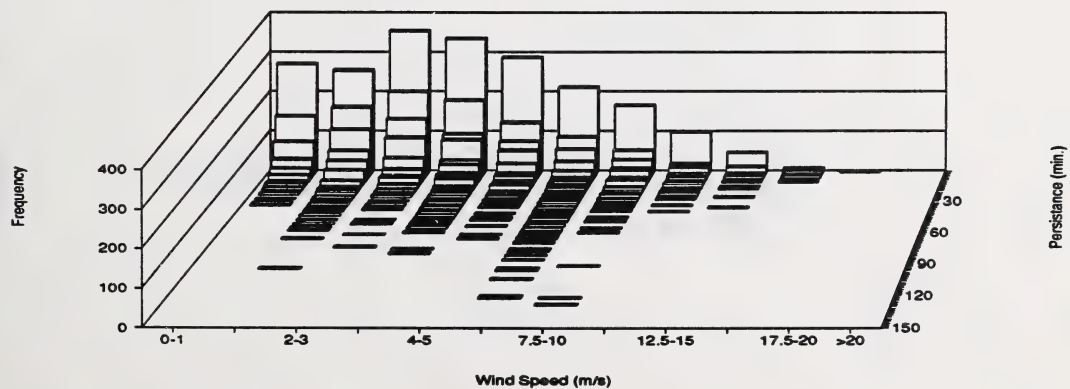
ADRP Persistence Data for November 1985.



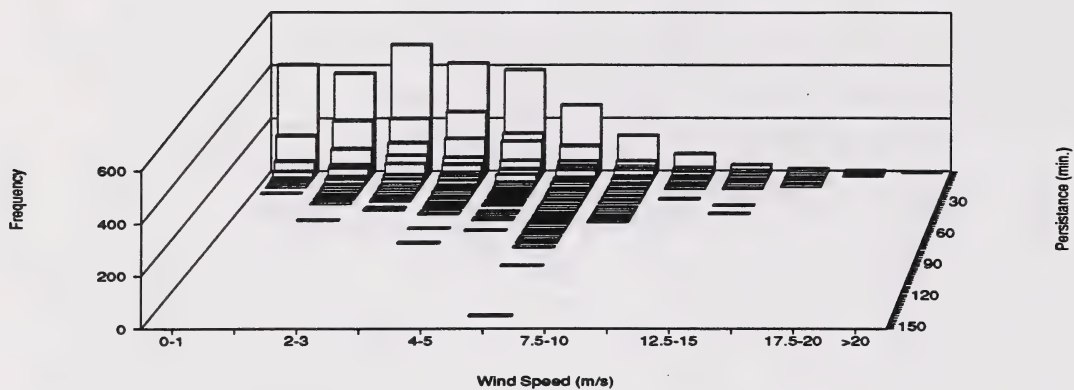
ADRP Persistence Data for November 1986.



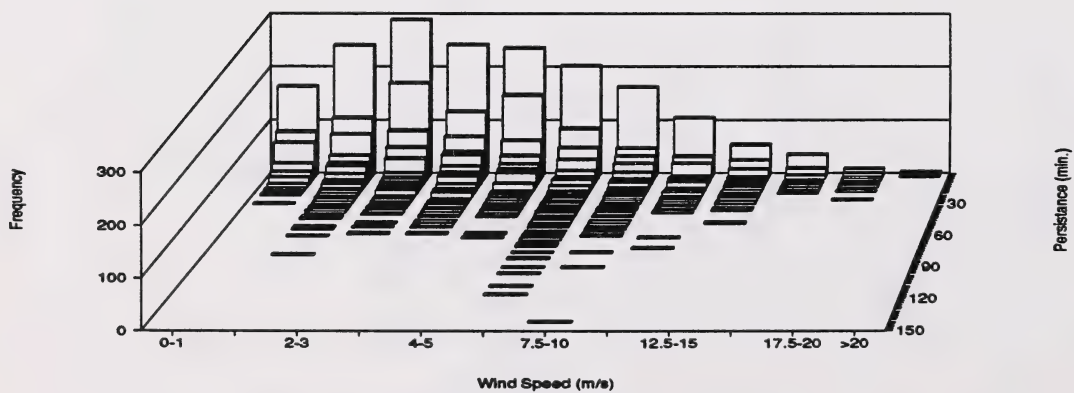
ADRP Persistence Data for December 1985.



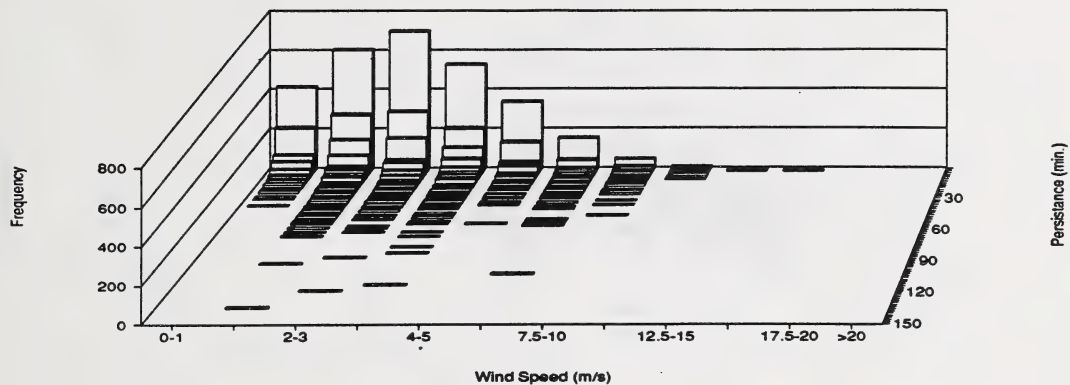
ADRP Persistence Data for December 1986.



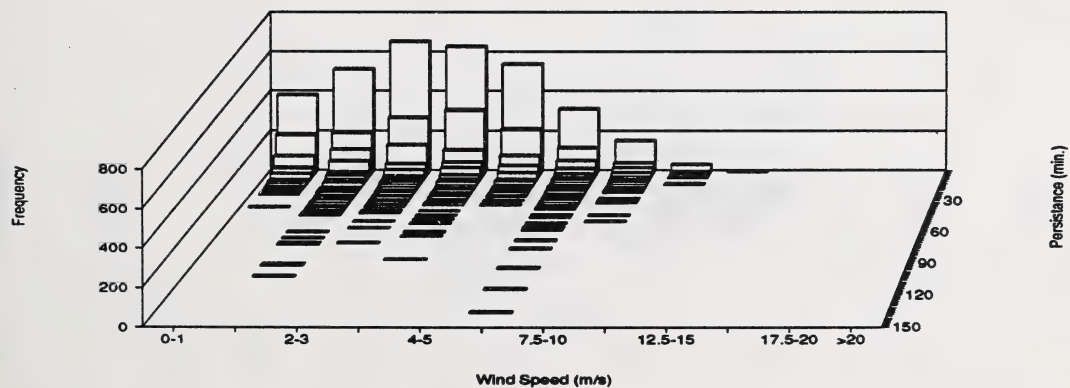
ADRP Persistence Data for January 1986.



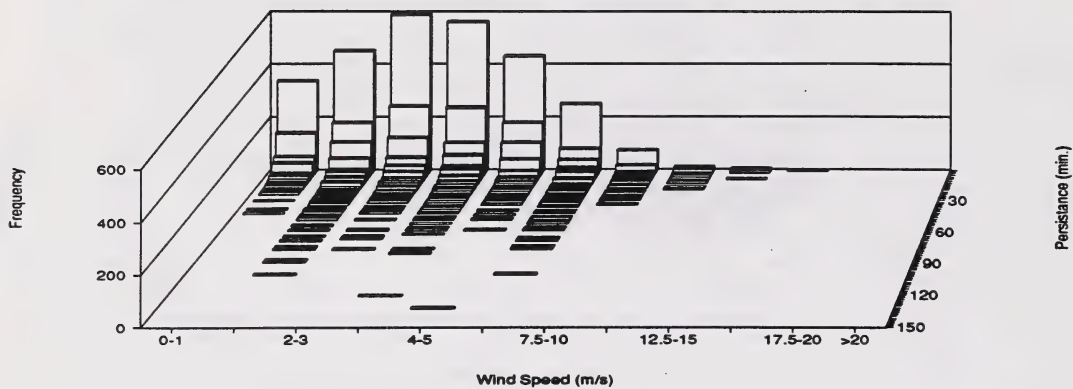
ADRP Persistence Data for January 1987.



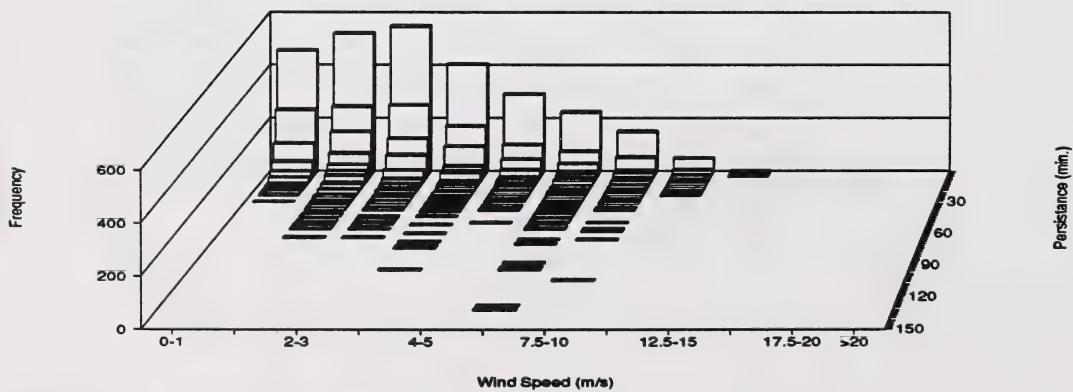
ADRP Persistence Data for August 1986.



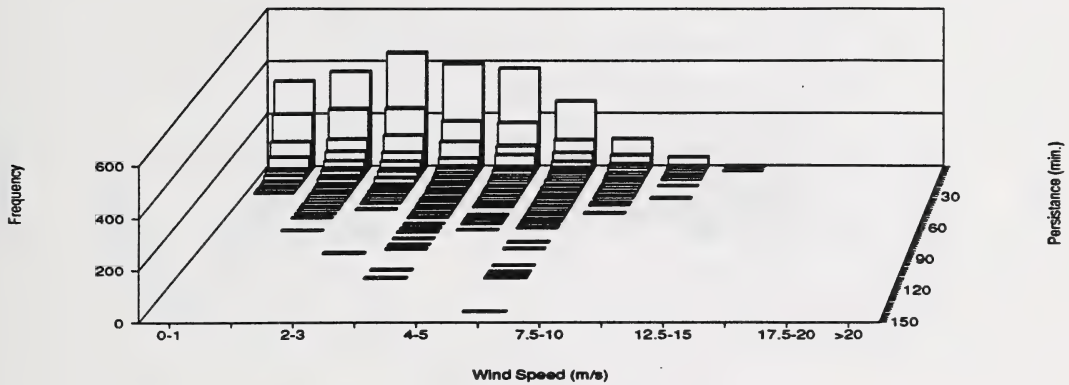
ADRP Persistence Data for August 1987.



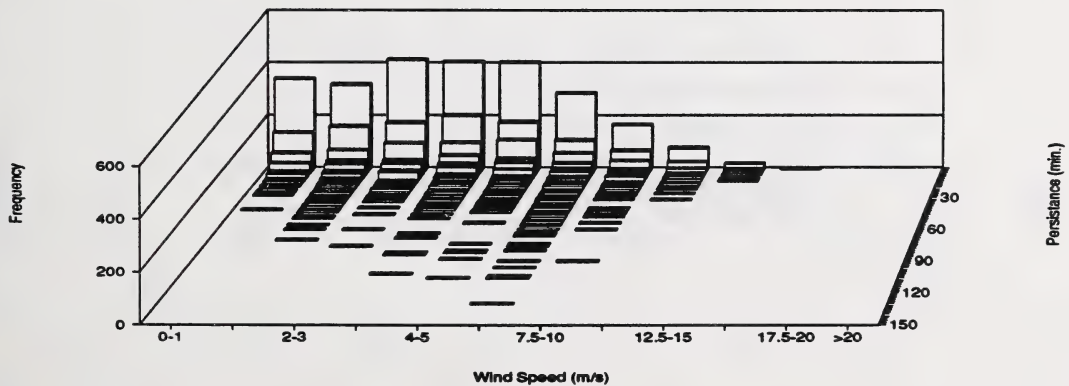
ADRP Persistence Data for September 1986.



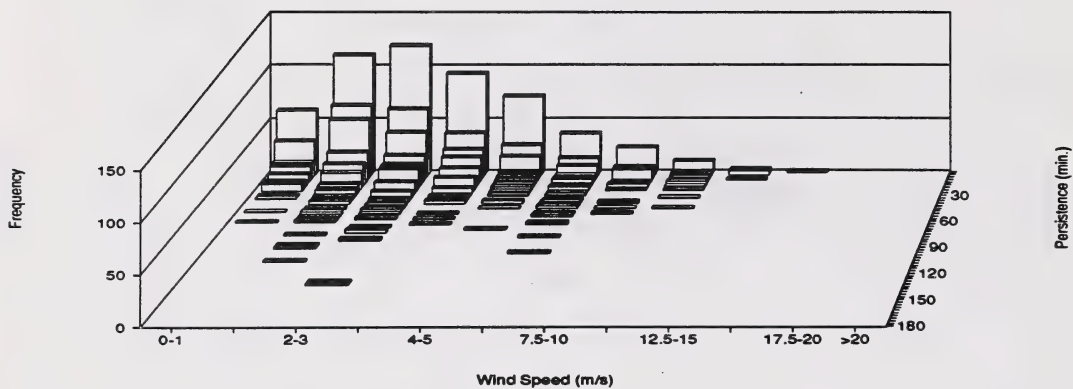
ADRP Persistence Data for September 1987.



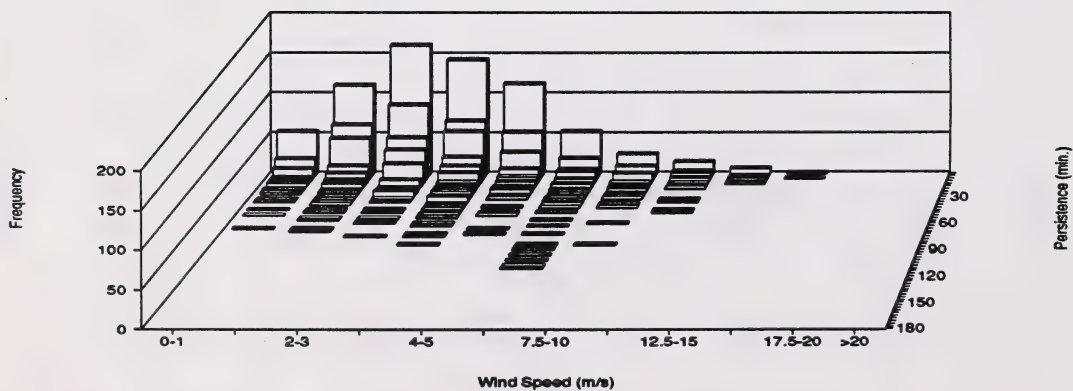
ADRP Persistence Data for October 1986.



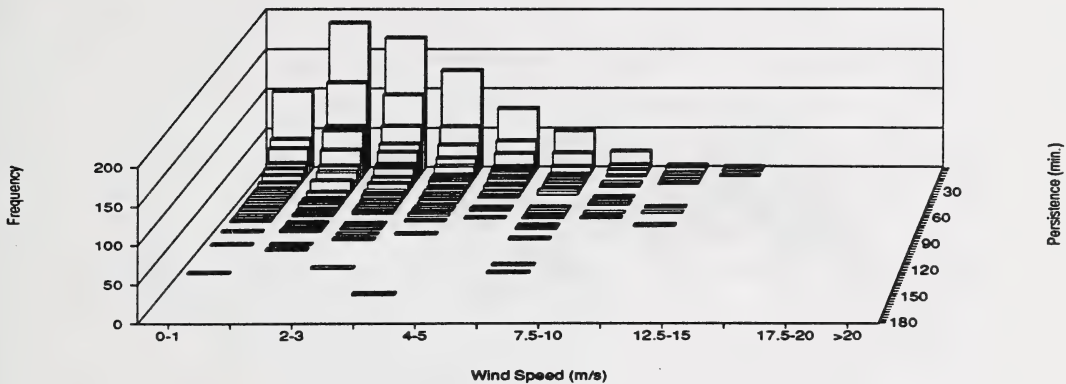
ADRP Persistence Data for October 1987.



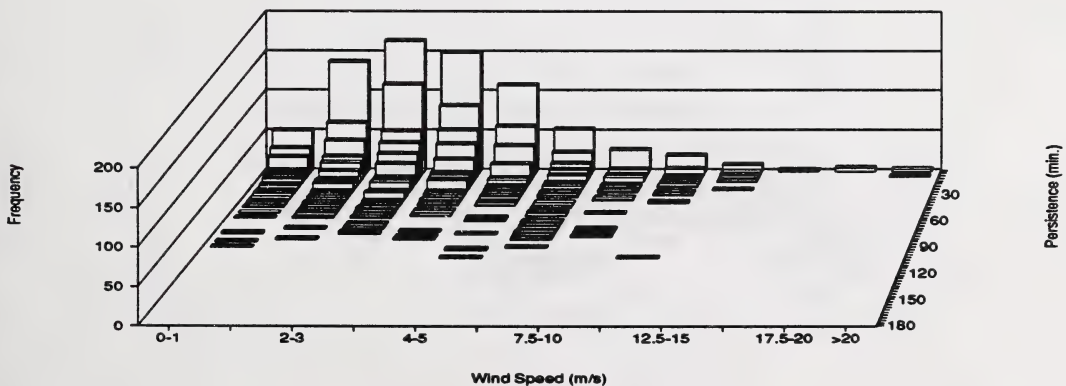
Kathyrn 4 m Persistence Data for October 1988.



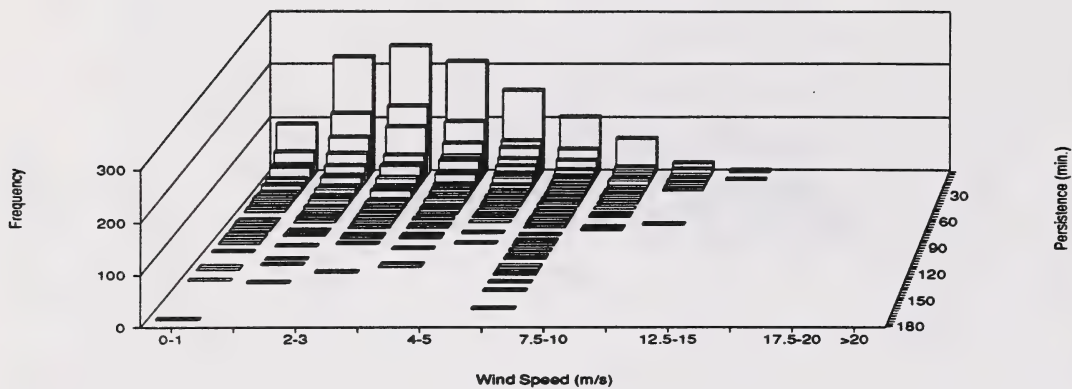
Kathyrn 10 m Persistence Data for October 1988.



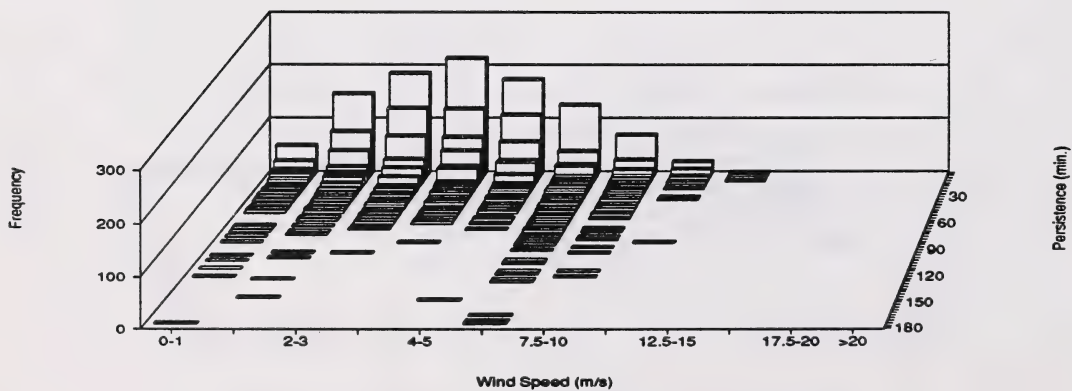
Kathyrn 4 m Persistence Data for November 1988.



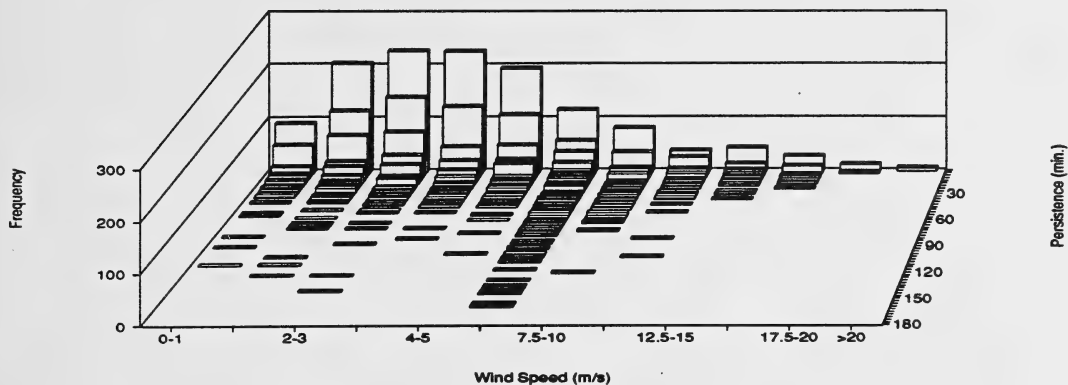
Kathyrn 10 m Persistence Data for November 1988.



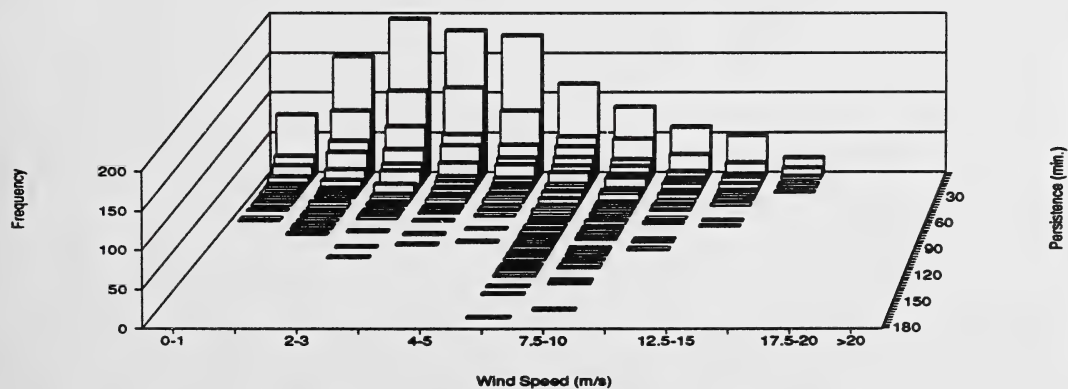
Kathyrn 4 m Persistence Data for December 1988.



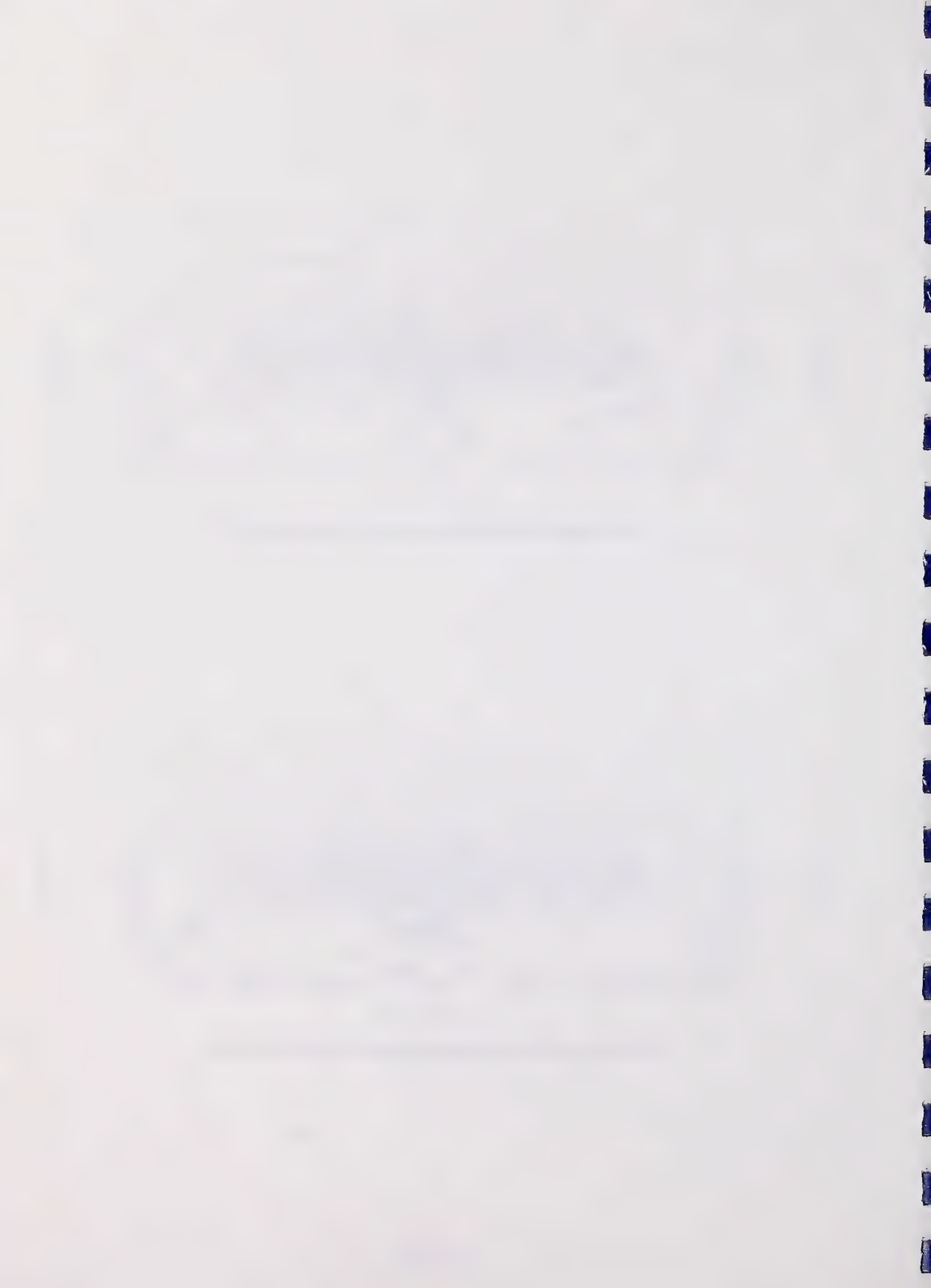
Kathyrn 10 m Persistence Data for December 1988.



Kathryn 4 m Persistence Data for January 1989.



Kathryn 10 m Persistence Data for January 1989.



Appendix D4

Calgary International Airport Data

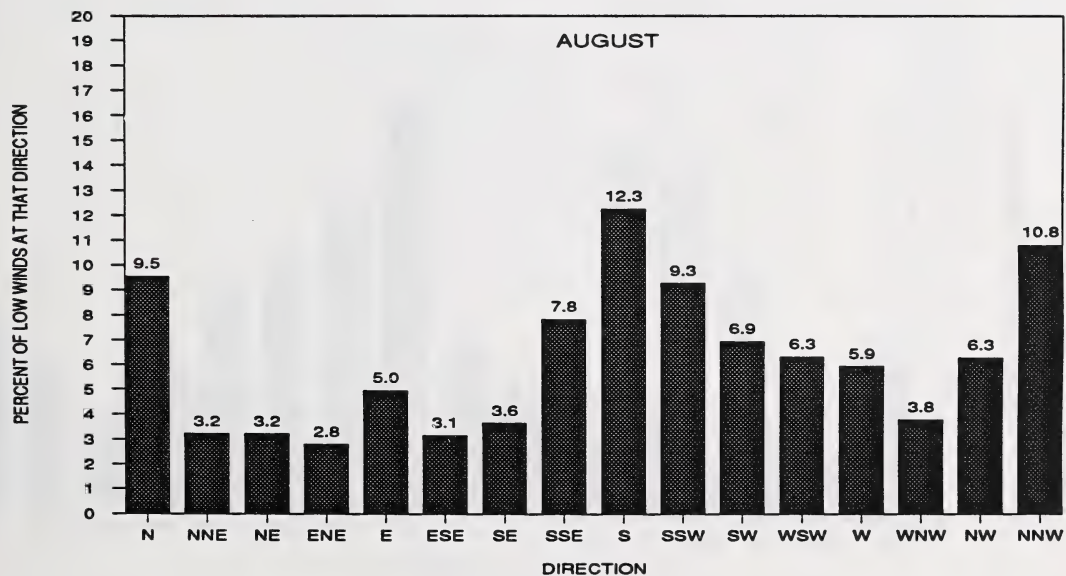
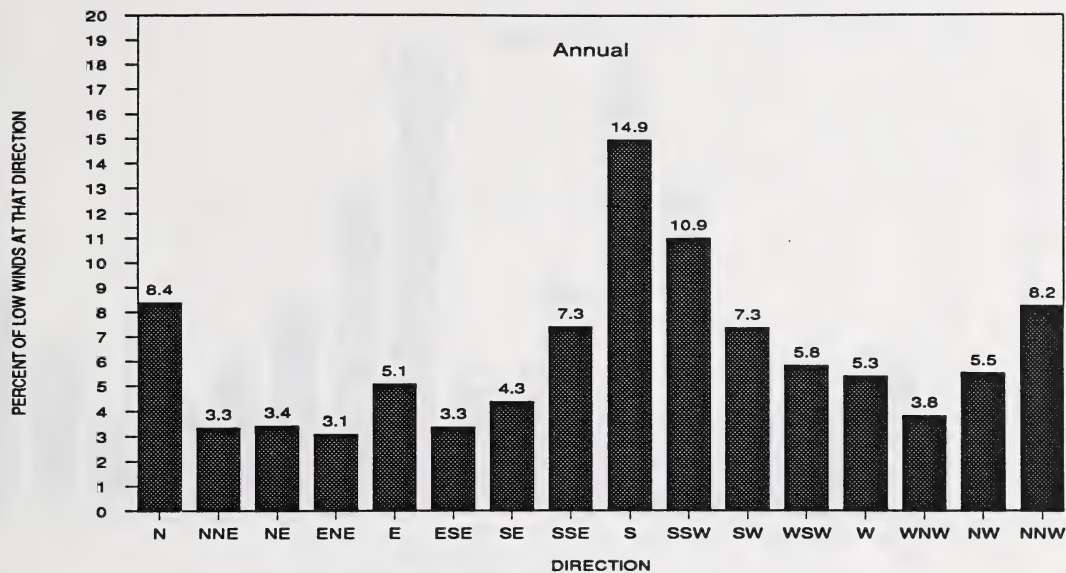


Figure D4.1

Calgary International Airport Wind Direction Frequency Distributions for Periods of Low Wind Speeds (0 to 3 knots) from 1980 to 1984

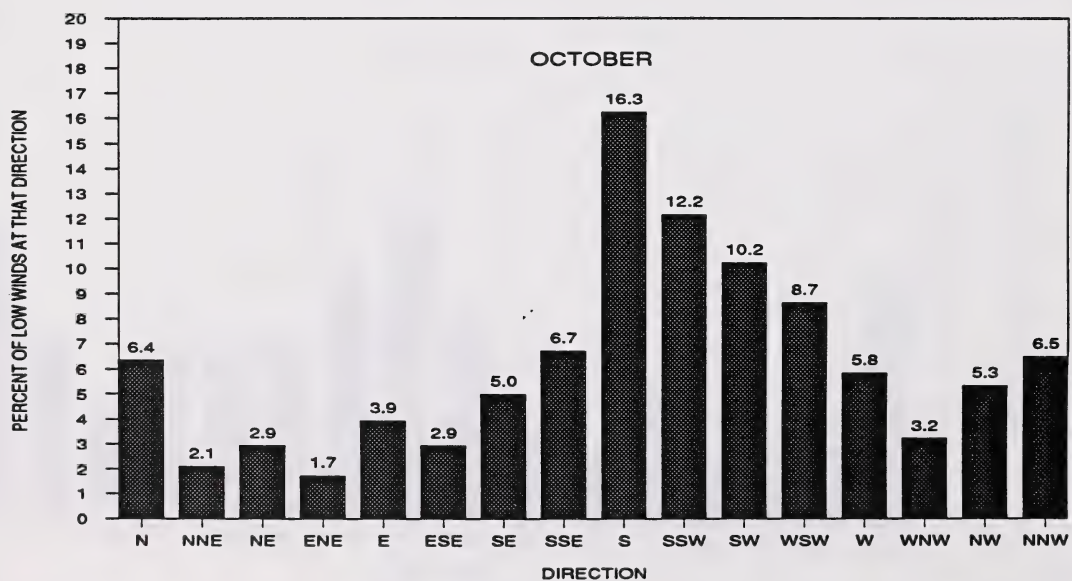
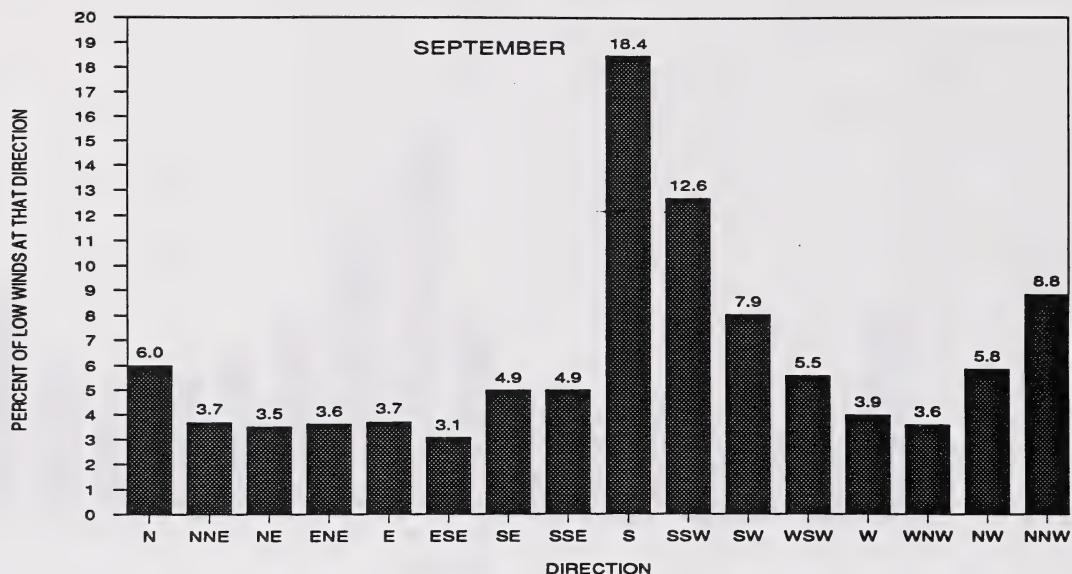


Figure D4.2

Calgary International Airport Wind Direction Frequency Distributions for Periods of Low Wind Speeds (0 to 3 knots) from 1980 to 1984

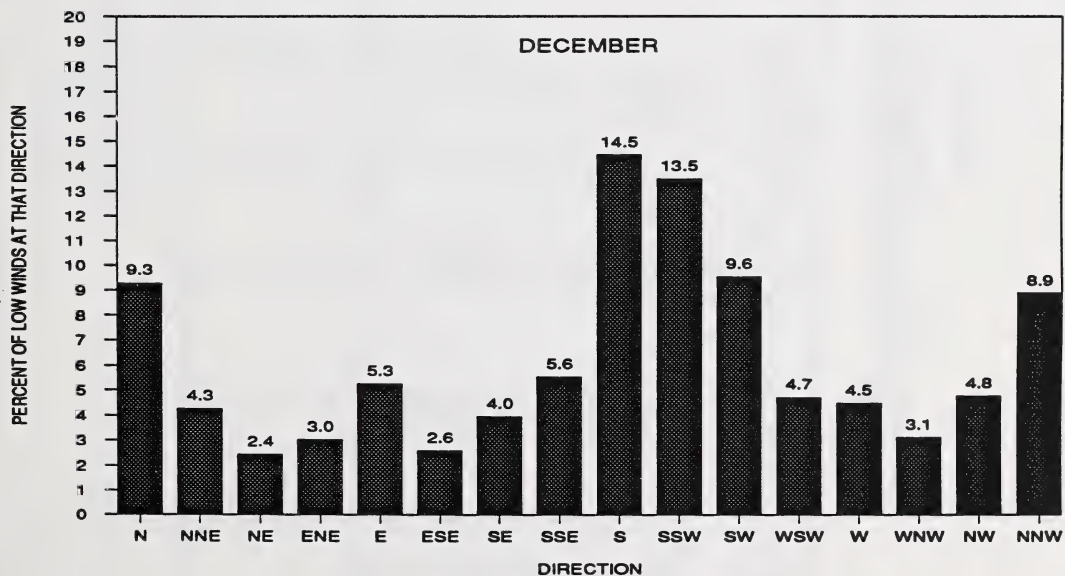
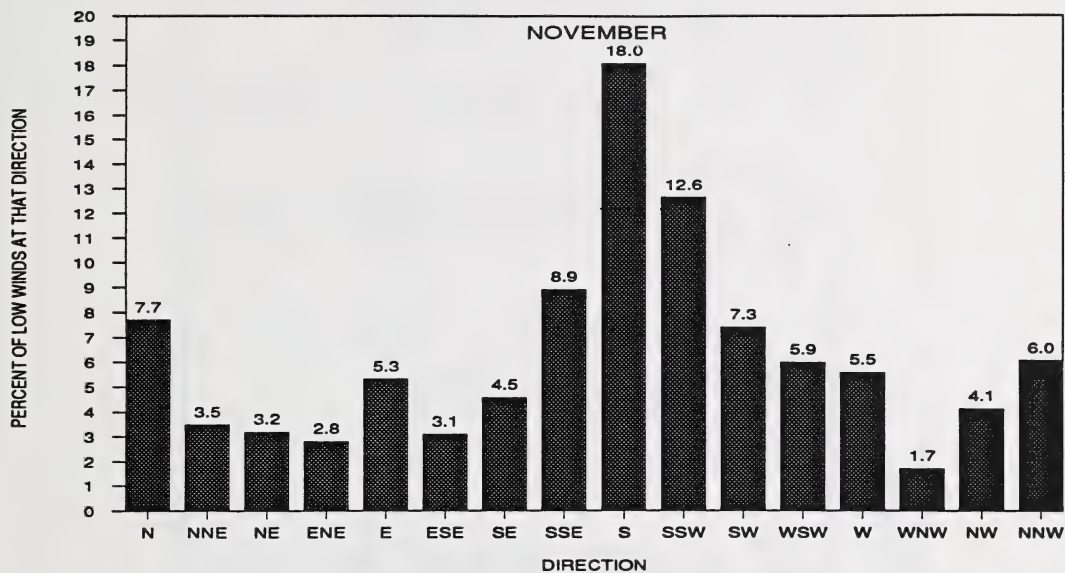


Figure D4.3

Calgary International Airport Wind Direction Frequency Distributions for Periods of Low Wind Speeds (0 to 3 knots) from 1980 to 1984

Table D4-1

**Monthly Summary of Frequencies of Low Wind Speeds
for Period January 1, 1980 to December 31, 1984**

A MONTH	B NO. OF CALMS	C NO. OF 1-3 KNOTS	D TOTAL OBS IN EACH MONTH	E MONTHLY % CALMS B/D	F MONTHLY % 1-3 KNOTS C/D	G MONTHLY % 1-3 KNOTS E+F	H YEARLY % CALMS B/TOT CALM	I YEARLY % 1-3 KNOTS C/TOT 1-3	J YEARLY % 1-3 KNOTS (B+C)/TOT 0-3
JAN	320	376	3720	8.60	10.11	18.71	8.80	7.91	8.30
FEB	235	335	3360	6.99	9.97	16.96	6.46	7.05	6.79
MAR	321	399	3720	8.63	10.73	19.35	8.82	8.40	8.58
APR	246	328	3600	6.83	9.11	15.94	6.76	6.90	6.84
MAY	248	329	3720	6.67	8.84	15.51	6.82	6.92	6.88
JUN	221	411	3600	6.14	11.42	17.56	6.07	8.65	7.53
JUL	254	426	3720	6.83	11.45	18.28	6.98	8.97	8.11
AUG	322	508	3720	8.66	13.66	22.31	8.85	10.69	9.89
SEP	269	378	3600	7.47	10.50	17.97	7.39	7.96	7.71
OCT	396	384	3720	10.65	10.32	20.97	10.89	8.08	9.30
NOV	361	440	3600	10.03	12.22	22.25	9.92	9.26	9.55
DEC	445	437	3720	11.96	11.75	23.71	12.23	9.20	10.51
TOTALS	3638	4751	43800				100.00	100.00	100.00

% CALMS/YEAR 8.31

% 1-3/YEAR 10.85

% 0-3 YEAR 19.15

Table D4-2
Period 1955-1980
Elevation 1084 Altitude
Percentage Frequency

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
N	11.8	10.7	10.6	9.8	9.4	9.3	8.8	9.6	9.7	7.7	10.3	10.7	9.9
NNE	2.9	2.8	3.5	3.7	3.3	3.4	3.3	3.1	2.5	2.2	2.3	2.4	2.9
NE	2.2	2.9	2.8	3.5	3.0	3.3	3.2	3.1	2.3	2.0	1.9	2.0	2.7
ENE	1.1	1.2	1.6	2.0	2.0	1.8	2.1	1.7	1.3	0.9	0.9	1.0	1.5
E	2.6	3.2	3.9	4.7	4.5	3.8	4.5	3.9	3.2	1.8	1.7	2.2	3.3
ESE	1.6	2.5	3.1	3.5	3.7	3.0	3.7	3.2	2.5	1.5	1.6	1.5	2.6
SE	4.8	5.9	7.4	7.2	6.5	6.2	7.8	6.7	5.6	4.7	4.2	3.8	5.9
SSE	5.5	6.6	8.5	7.5	7.7	7.0	7.1	6.7	7.2	6.6	5.4	4.5	6.7
S	10.2	11.9	10.7	9.2	8.5	7.7	8.3	9.0	10.6	11.6	11.1	10.0	9.9
SSW	6.0	5.9	5.1	4.5	3.7	3.7	3.8	4.7	5.6	7.2	6.8	6.9	5.3
SW	5.5	5.4	4.8	4.3	3.9	4.2	4.7	5.1	5.0	6.6	6.4	6.6	5.2
WSW	3.6	3.5	3.4	3.5	3.2	3.3	3.0	3.0	3.1	4.3	4.7	4.7	3.6
W	13.2	11.9	10.0	9.7	9.7	9.9	7.6	7.4	8.8	15.0	14.1	14.3	11.0
WNW	2.9	2.7	2.5	3.5	4.1	5.3	3.8	3.4	3.4	3.4	3.2	2.7	3.4
NW	6.1	4.9	5.3	6.3	8.1	9.3	8.4	7.9	7.8	5.8	5.8	5.5	6.8
NNW	10.5	8.6	9.5	11.3	12.5	12.3	11.7	12.8	12.8	9.9	9.2	10.7	11.0
Calm	9.5	9.4	7.3	5.8	6.2	6.5	8.2	8.7	8.6	8.8	10.4	10.5	8.3

Table D4-2 (Continued)
Mean Wind Speed in Kilometres per Hour

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
N	19.7	20.4	21.3	22.3	21.4	19.4	17.0	17.9	19.8	18.9	18.8	19.2	19.7
NNE	16.4	16.7	18.6	20.3	19.3	18.5	16.5	16.3	17.1	16.5	15.0	15.3	17.2
NE	11.0	12.1	13.6	16.1	15.2	16.1	13.2	13.3	12.5	13.3	10.8	11.3	13.2
ENE	10.3	11.5	13.2	16.2	16.5	15.5	14.9	13.1	13.8	13.4	10.7	11.0	13.3
E	10.4	11.8	13.7	16.2	15.8	14.9	13.9	13.1	13.9	12.2	10.7	10.7	13.1
ESE	12.0	14.4	16.0	17.1	18.6	16.5	16.6	14.9	14.4	13.1	12.9	11.9	14.9
SE	13.2	13.8	15.4	17.3	18.6	16.9	16.0	15.0	15.3	14.5	13.0	12.7	15.1
SSE	14.6	14.5	16.3	19.3	20.0	18.3	16.9	16.2	15.9	16.2	14.1	13.8	16.3
S	12.3	12.8	13.2	14.4	15.1	14.3	13.8	13.0	13.1	13.2	12.1	12.3	13.3
SSW	11.5	11.7	11.5	13.0	12.5	12.6	12.0	11.4	11.3	11.8	11.6	11.4	11.9
SW	12.1	11.7	11.5	12.6	11.8	11.3	11.0	10.8	10.1	12.1	11.6	12.3	11.6
WSW	20.8	20.2	19.2	18.6	16.5	17.2	14.6	15.3	16.0	19.8	20.1	22.4	18.4
W	30.4	29.3	27.1	25.9	24.8	24.2	21.2	20.5	24.7	27.2	28.0	29.1	26.0
WNW	22.3	21.5	22.1	22.5	21.3	21.5	19.3	18.0	20.4	22.1	20.3	22.3	21.1
NW	15.6	15.3	16.7	18.5	19.3	18.2	16.7	15.5	18.4	17.0	15.3	15.7	16.9
NNW	20.4	20.3	20.8	23.6	24.1	20.7	17.9	18.6	22.0	21.1	19.2	22.0	20.9

All Directions

16.2	15.8	16.4	18.1	18.2	17.0	14.9	14.4	15.8	16.3	15.4	16.1	16.2
------	------	------	------	------	------	------	------	------	------	------	------	------

Maximum Hourly Speed

80	89	78	89	85	82	80	80	84	90	77	90	90
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Maximum Gust Speed

127	126	114	116	121	109	122	109	101	115	113	111	127
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

W	NNW	N	NNW	NNW	NW	NNW	NNW	WSW	NNW	WSW	SVL	W
---	-----	---	-----	-----	----	-----	-----	-----	-----	-----	-----	---

Height of Anemometer 18.3 m

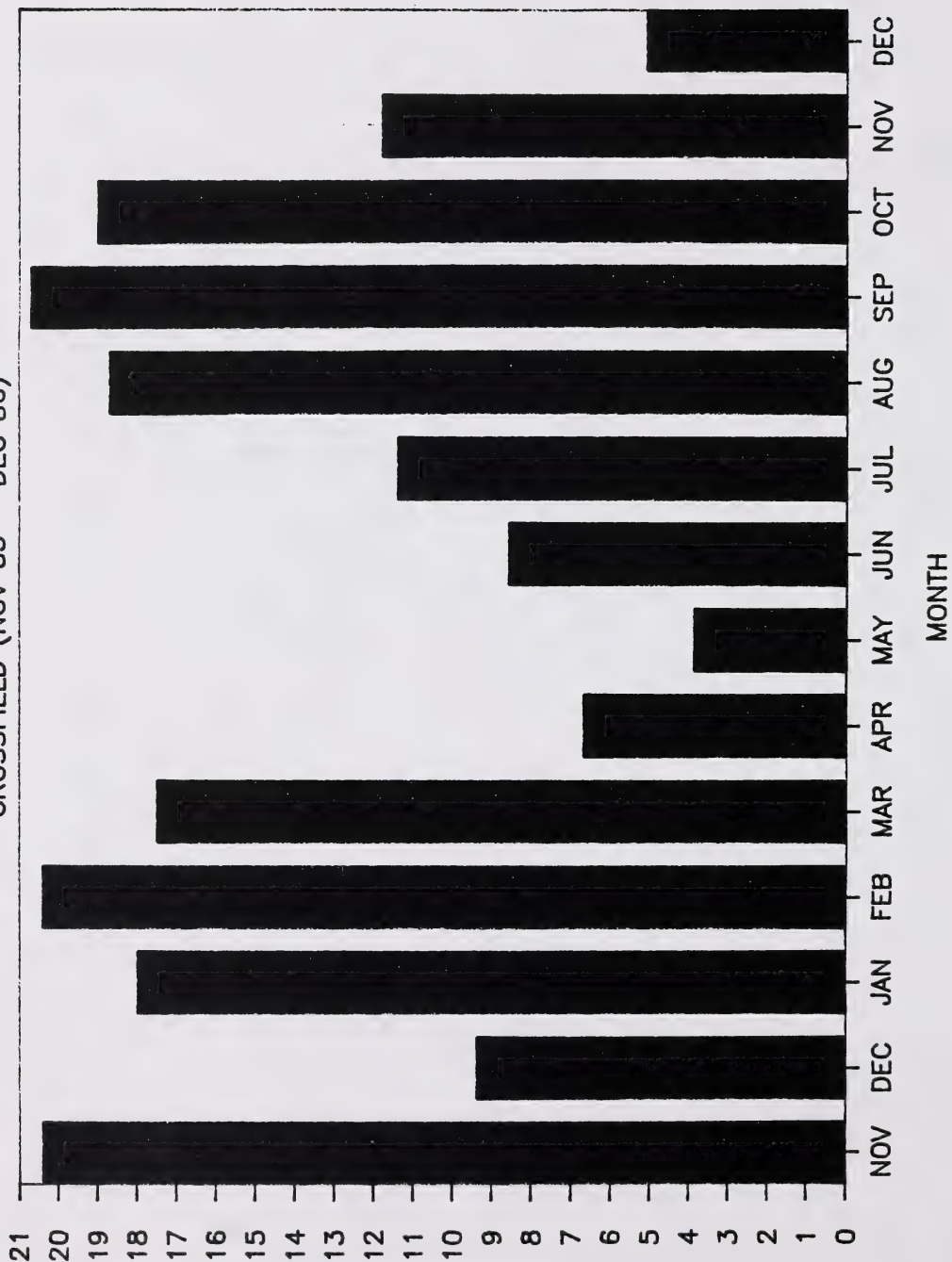
Station is located 6.5 km northeast of the centre of the city. The country is slightly rolling with the nearest mountain 95-110 km to the southwest. Numerous buildings surround the instrument area.

Appendix D5

ADRP Crossfield 1-Hr Data

FREQUENCY OF WINDSPEEDS LESS THAN 2 M/S UNDER STABLE ATMOSPHERES

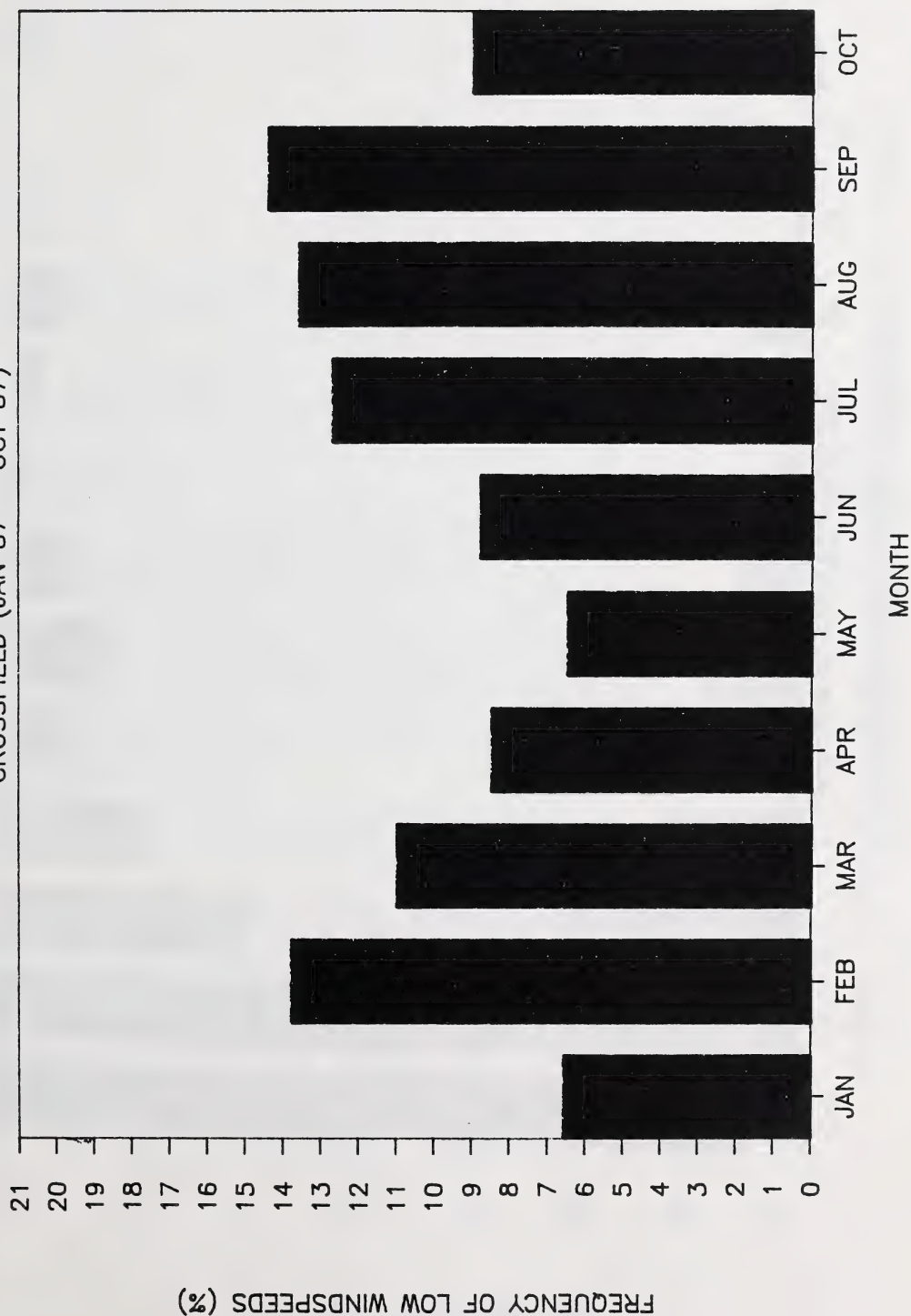
CROSSFIELD (NOV 85 -- DEC 86)



FREQUENCY OF LOW WINDSPEEDS (Z)

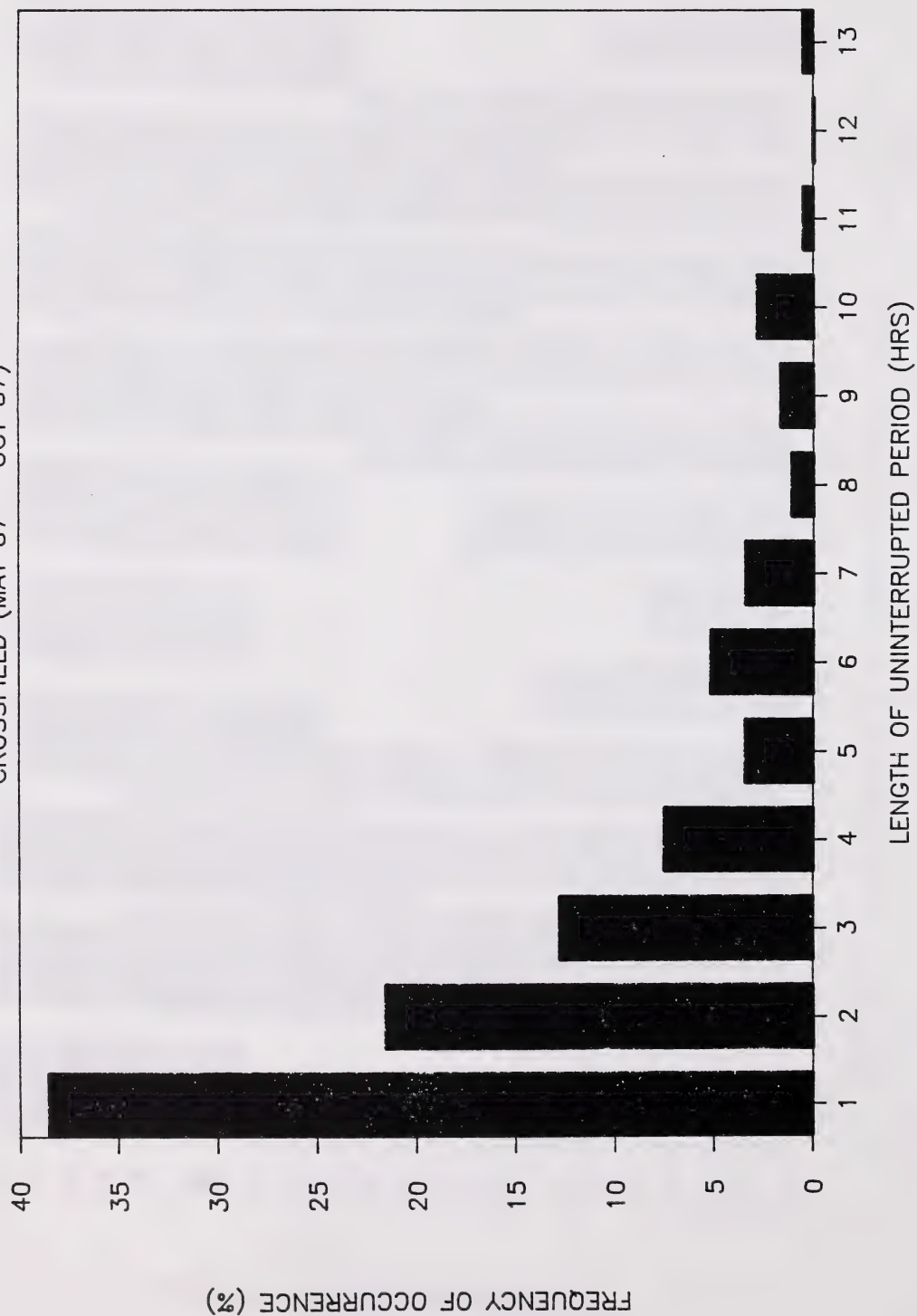
FREQUENCY OF WINDSPEEDS LESS THAN 2 M/S UNDER STABLE ATMOSPHERES

CROSSFIELD (JAN 87 - OCT 87)



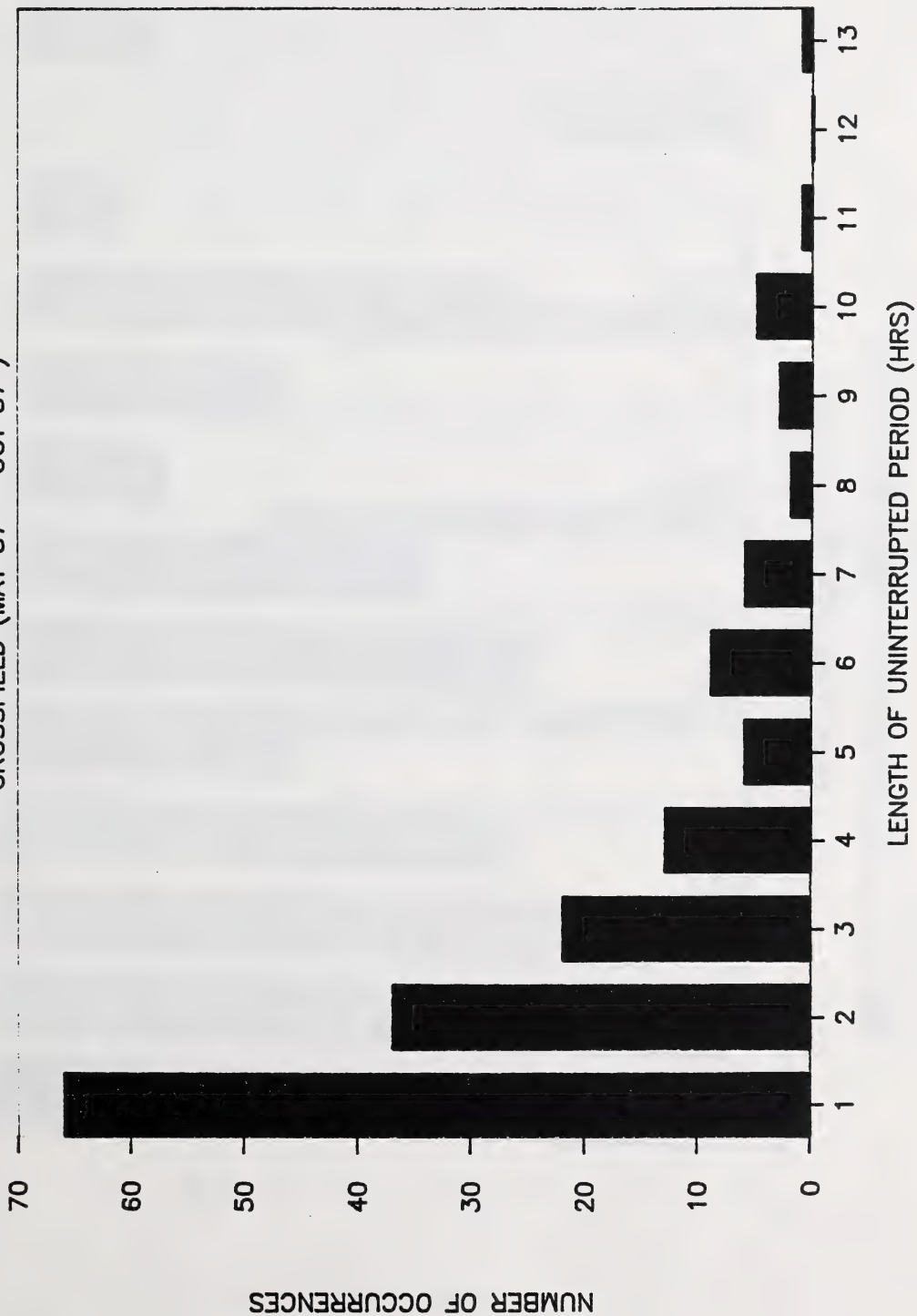
PERIODS OF UNINTERRUPTED LOW WIND, STABLE CONDITIONS ($U < 2 \text{ M/S}$)

CROSSFIELD (MAY 87 -- OCT 87)



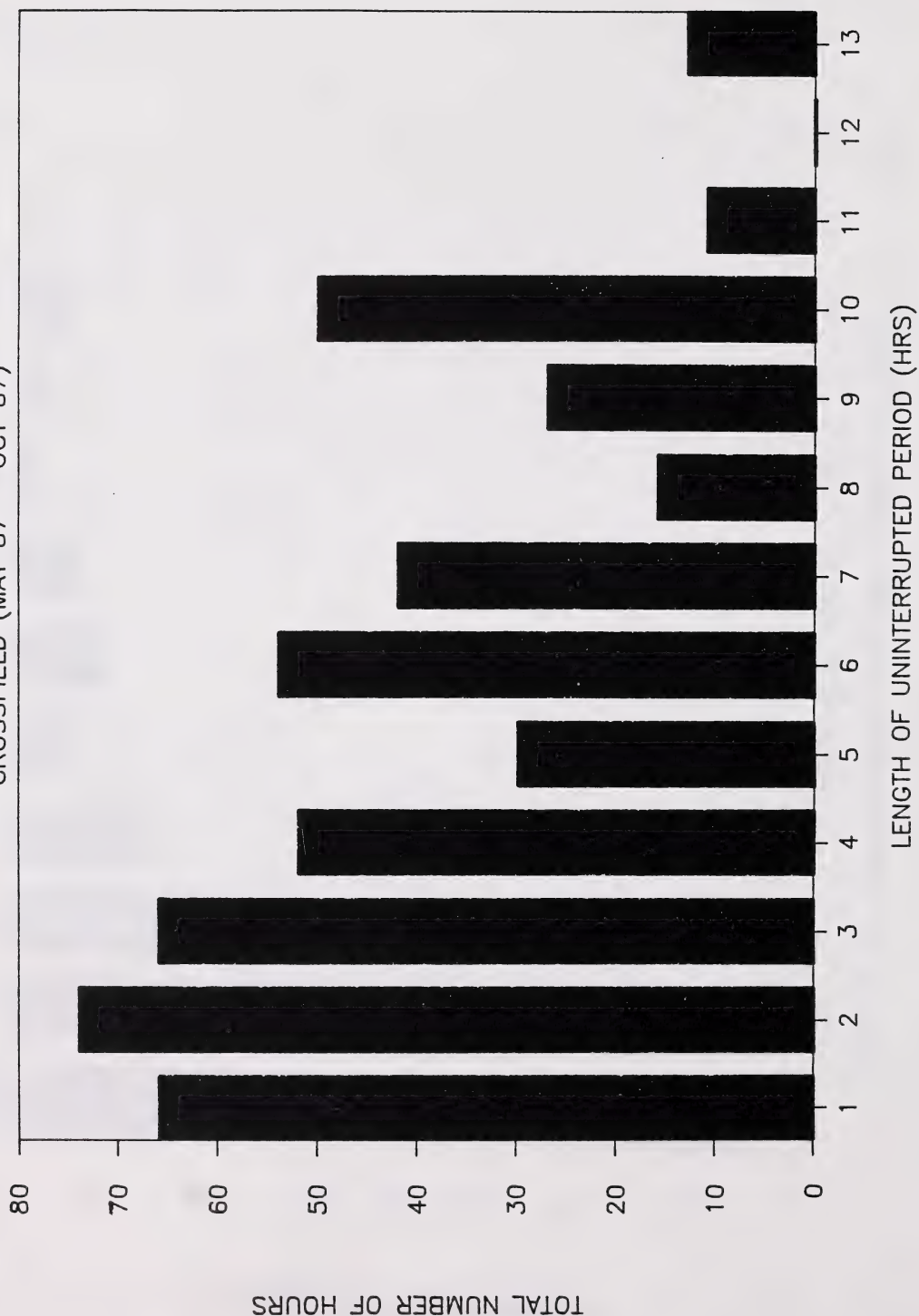
PERIODS OF UNINTERRUPTED LOW WIND, STABLE CONDITIONS ($U < 2$ M/S)

CROSSFIELD (MAY 87 - OCT 87)



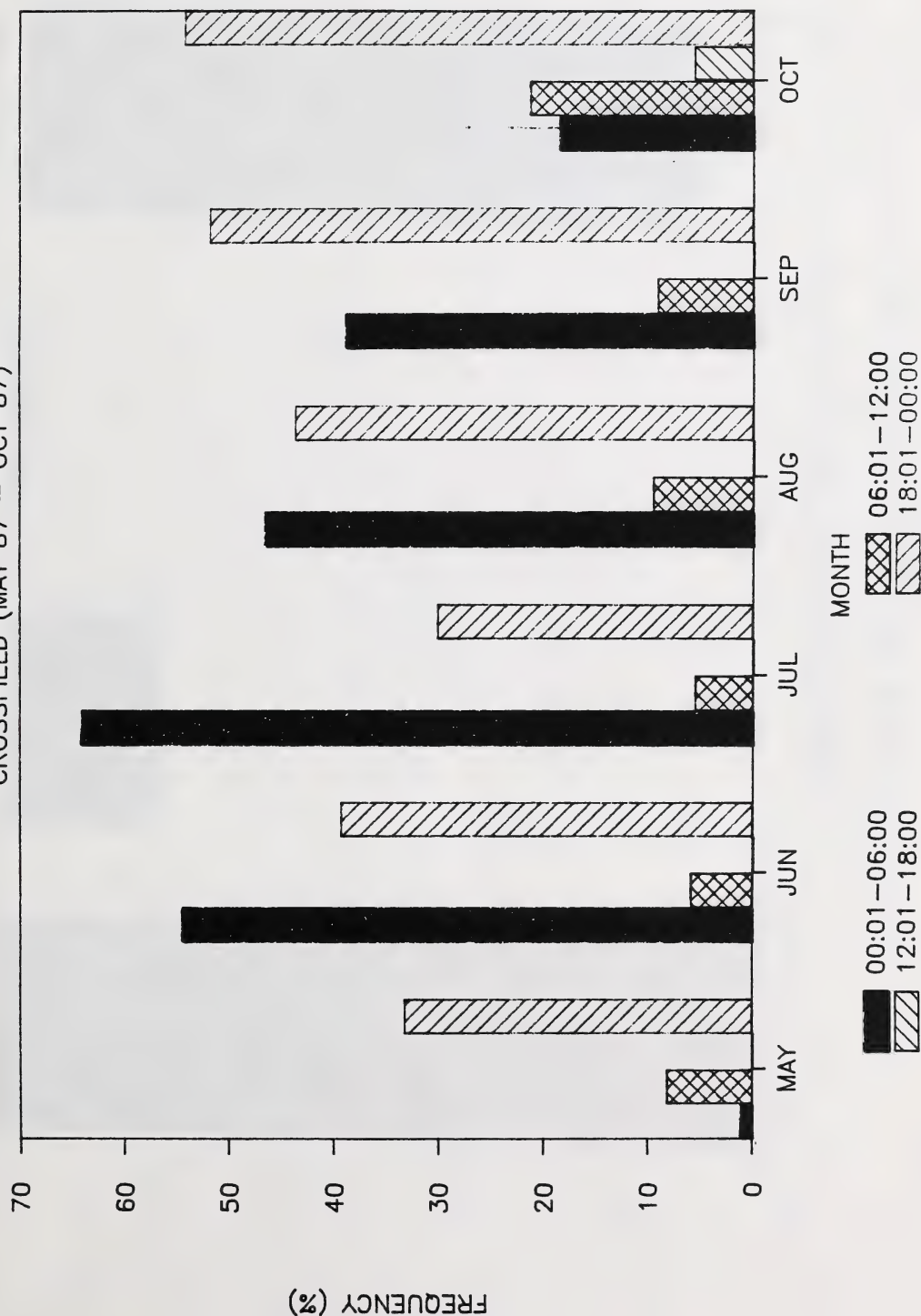
TOTAL HOURS OF LOW WIND, STABLE CONDITIONS ($U < 2 \text{ M/S}$)

CROSSFIELD (MAY 87 - OCT 87)



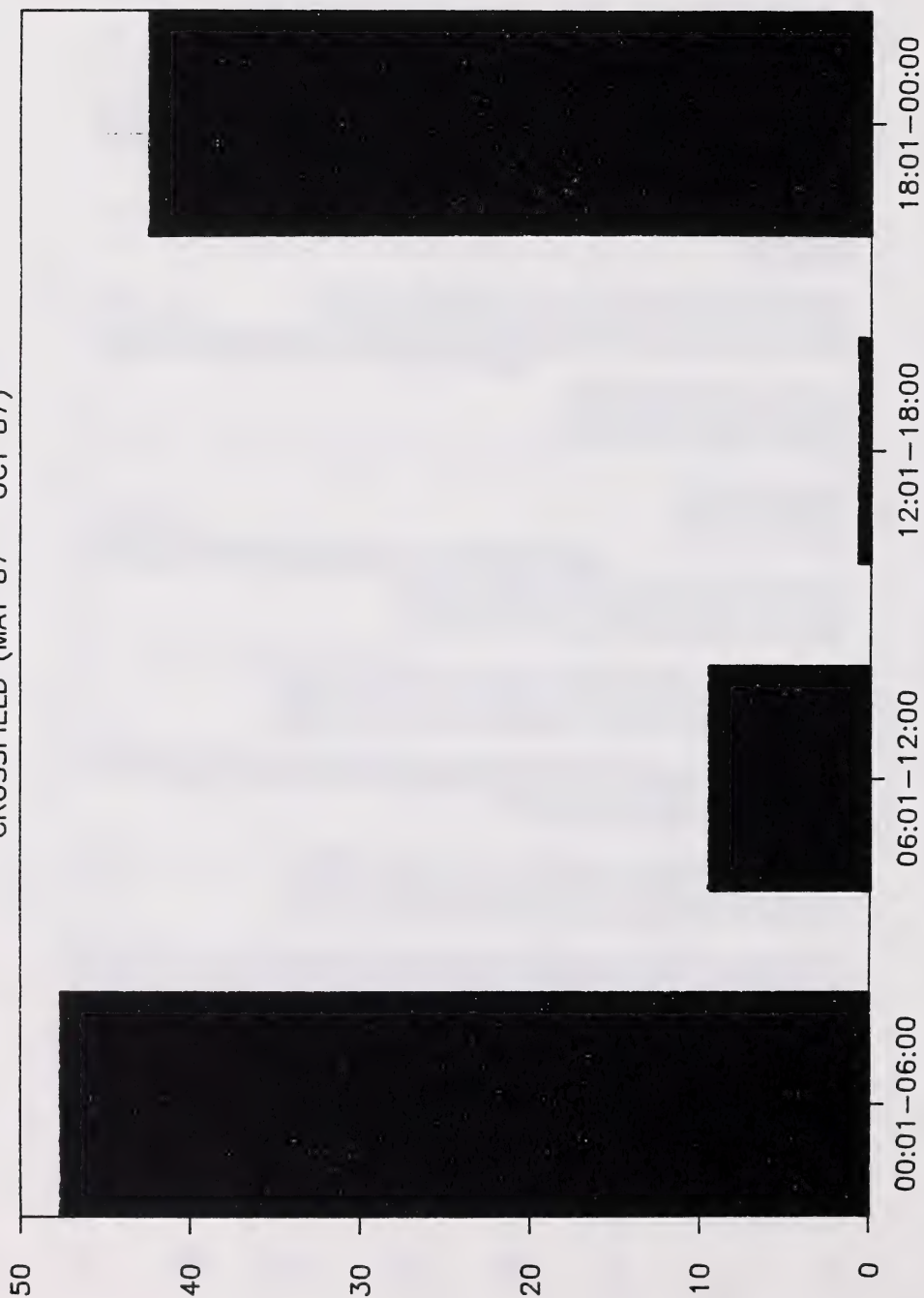
HOURLY PERIODS OF LOW, STABLE WINDS

CROSSFIELD (MAY 87 - OCT 87)



HOURLY PERIODS OF LOW, STABLE WINDS ($U < 2\text{M}\backslash\text{S}$)

CROSSFIELD (MAY 87 - OCT 87)

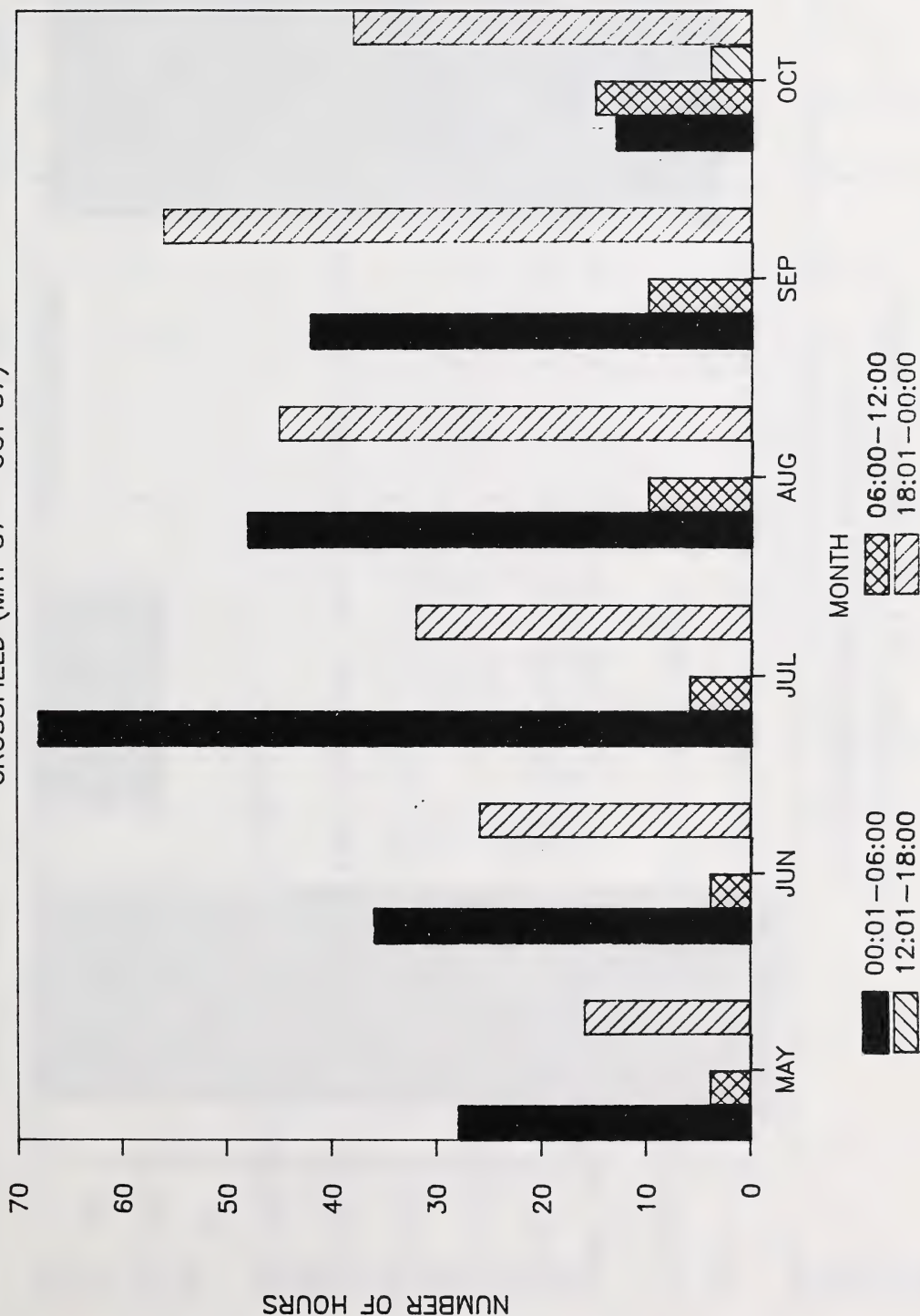


TOTAL

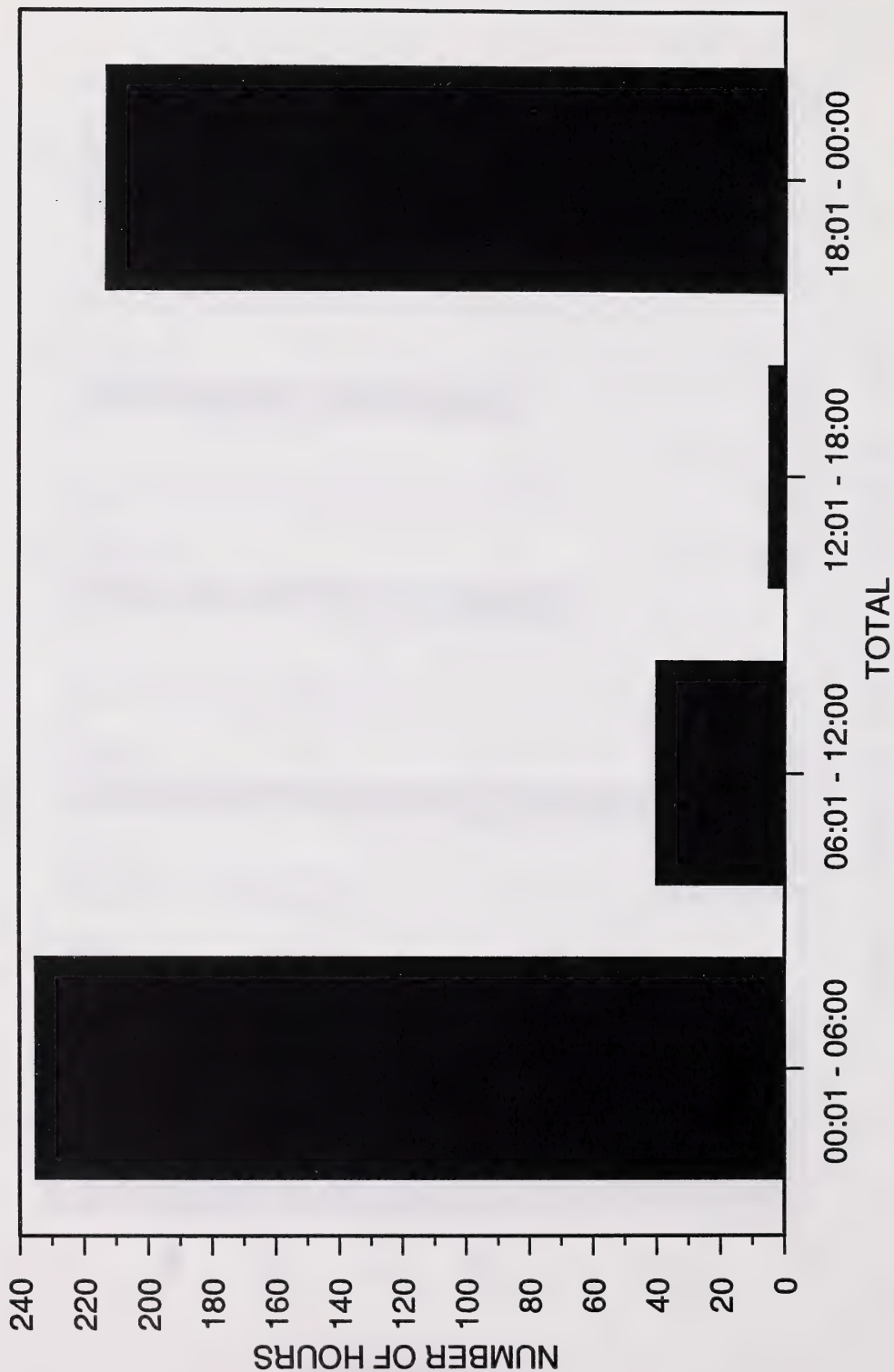
FREQUENCY (%)

HOURLY PERIODS OF LOW, STABLE WINDS ($U < 2\text{M/S}$)

CROSSFIELD (MAY 87 - OCT 87)



HOURLY PERIODS OF LOW, STABLE WINDS
CROSSFIELD (MAY 87 to OCT 87)



PERIODS OF UNINTERRUPTED LOW STABLE WIND CONDITIONS (NUMBER OF OCCURRENCES)

MONTH	OCCURRENCES												TOTAL
	1 HR	2 HRS	3 HRS	4 HRS	5 HRS	6 HRS	7 HRS	8 HRS	9 HRS	10 HRS	11 HRS	12 HRS	13 HRS
MAY67	7	4	5	2	2	0	0	0	0	0	0	0	0
JUN67	15	4	1	1	2	0	1	0	1	1	0	0	0
JUL67	6	5	2	1	0	3	1	2	1	3	0	0	0
AUG67	13	14	2	2	1	1	1	0	1	1	1	0	0
SEP67	20	6	8	2	0	5	2	0	0	0	0	0	0
OCT67	5	4	4	5	1	0	1	0	0	0	0	0	1
TOTAL	66	37	22	13	6	9	6	2	3	5	1	0	1

PERIODS OF UNINTERRUPTED LOW STABLE WIND CONDITIONS (FREQUENCY %)

MONTH	FREQUENCY												
	1 HOUR	2 HOURS	3 HOURS	4 HOURS	5 HOURS	6 HOURS	7 HOURS	8 HOURS	9 HOURS	10 HOURS	11 HOURS	12 HOURS	13 HOURS
MAY67	14.58	16.67	31.25	16.67	20.83	0	0	0	0	0	0	0	0
JUN67	22.73	12.12	4.55	6.06	15.15	0	10.61	0	13.64	15.15	0	0	0
JUL67	5.66	9.43	5.66	3.77	0	16.98	6.6	15.09	8.49	28.3	0	0	0
AUG67	12.62	27.18	5.83	7.77	4.85	5.83	6.8	0	8.74	9.71	10.68	0	0
SEP67	18.52	11.11	22.22	7.41	0	27.78	0	0	0	0	0	0	0
OCT67	7.14	11.43	17.14	28.57	7.14	0	10	0	0	0	0	0	18.57
TOTAL	13.17	14.77	13.17	10.38	5.99	10.78	8.38	3.19	5.39	9.98	2.2	0	2.59
FREQ													
OF PERIOD	38.6	21.64	12.87	7.6	3.51	5.26	3.51	1.17	1.75	2.92	0.58	0	0.58

PERIODS OF LOW STABLE WIND CONDITIONS INTERRUPTED BY 1 HOUR (NUMBER OF OCCURRENCES)

MONTH	1 HOUR	2 HOURS	3 HOURS	4 HOURS	5 HOURS	6 HOURS	7 HOURS	8 HOURS	9 HOURS	10 HOURS	11 HOURS	12 HOURS	13 HOURS
MAY67	0	0	0	0	0	0	2	1	1	0	0	0	0
JUN67	0	0	0	0	1	0	0	0	0	0	0	0	0
JUL67	0	0	0	0	0	0	0	0	3	0	0	0	0
AUG67	0	0	0	0	0	0	0	0	2	0	0	0	0
SEP67	0	0	2	0	0	1	0	0	0	0	0	0	1
OCT67	0	0	0	0	0	0	0	0	0	0	0	0	0

ACID DEPOSITION RESEARCH PROGRAM
 program jlercb - data c.adrppl
 frequency of windspeeds at Crossfield West
 less than or equal to 7 km/hr
 for net radiation at Crossfield West
 less than zero Ly/min

MONTH	Frequency	Percent	Cumulative Frequency	Cumulative Percent
nov85	147	10.4	147	10.4
dec85	70	4.9	217	15.3
jan86	134	9.5	351	24.8
feb86	137	9.7	488	34.5
mar86	130	9.2	618	43.7
apr86	48	3.4	666	47.1
may86	30	2.1	696	49.2
jun86	64	4.5	760	53.7
jul86	14	1.0	774	54.7
mar87	76	5.4	850	60.1
apr87	64	4.5	914	64.6
may87	49	3.5	963	68.1
jun87	67	4.7	1030	72.8
jul87	104	7.3	1134	80.1
aug87	103	7.3	1237	87.4
sep87	108	7.6	1345	95.1
oct87	70	4.9	1415	100.0

Frequency Missing = 4397

ACID DEPOSITION RESEARCH PROGRAM
 program jlercb - data c.adrpp1
 frequency of windspeeds at Crossfield West
 less than or equal to 7 km/hr
 for combined net radiation at Crossfield West and East
 less than zero Ly/min

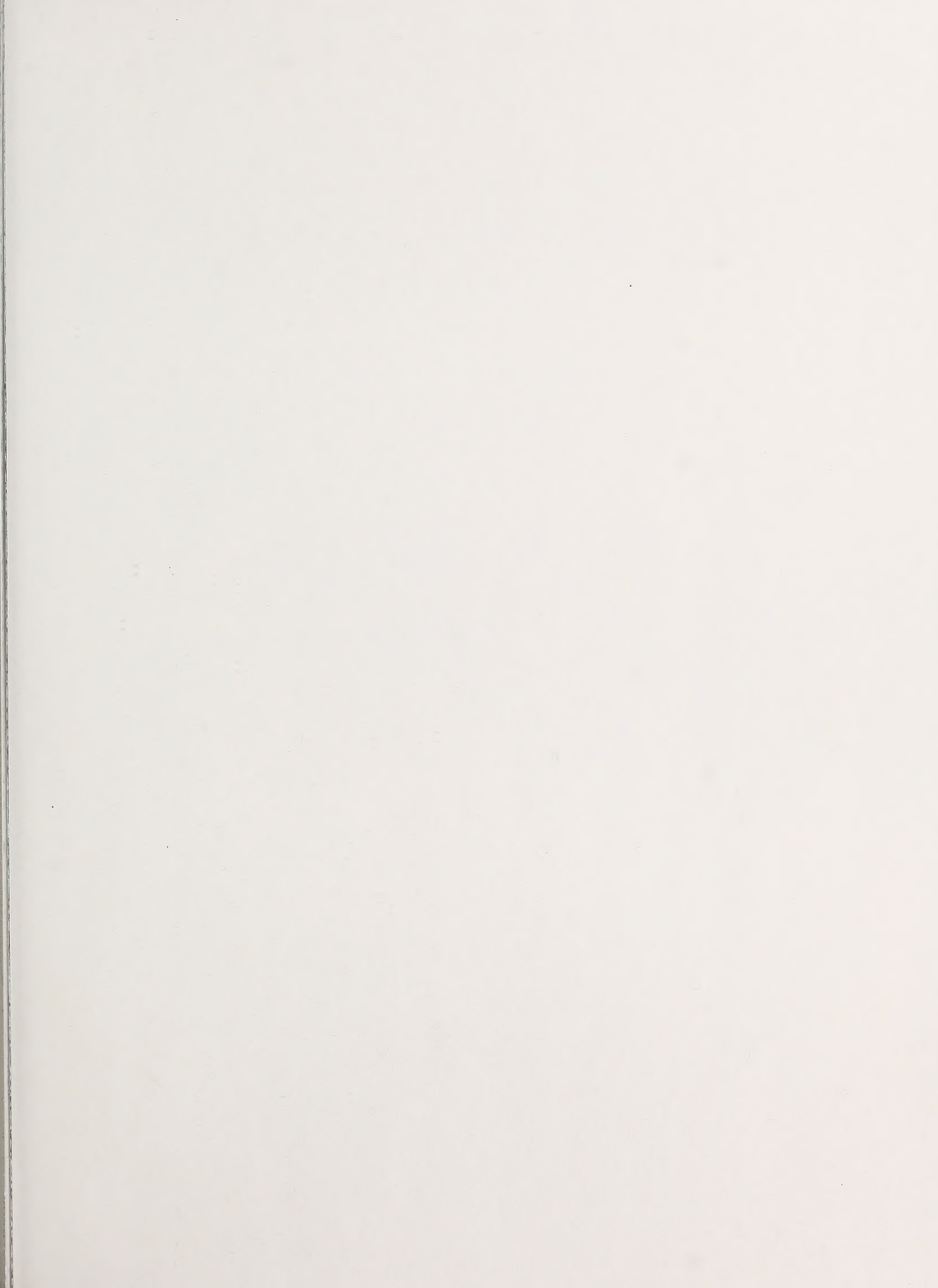
MONTH	Frequency	Percent	Cumulative Frequency	Cumulative Percent
nov85	147	6.8	147	6.8
dec85	70	3.2	217	10.0
jan86	134	6.2	351	16.2
feb86	137	6.3	488	22.6
mar86	130	6.0	618	28.6
apr86	48	2.2	666	30.8
may86	29	1.3	695	32.1
jun86	62	2.9	757	35.0
jul86	85	3.9	842	38.9
aug86	139	6.4	981	45.4
sep86	154	7.1	1135	52.5
oct86	141	6.5	1276	59.0
nov86	85	3.9	1361	63.0
dec86	38	1.8	1399	64.7
jan87	49	2.3	1448	67.0
feb87	93	4.3	1541	71.3
mar87	82	3.8	1623	75.1
apr87	61	2.8	1684	77.9
may87	48	2.2	1732	80.1
jun87	63	2.9	1795	83.0
jul87	95	4.4	1890	87.4
aug87	101	4.7	1991	92.1
sep87	104	4.8	2095	96.9
oct87	67	3.1	2162	100.0

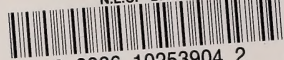
Frequency Missing = 7132

ACID DEPOSITION RESEARCH PROGRAM
 program jlercb - data c.adrpp1
 frequency of windspeeds at Crossfield West
 less than or equal to 7 km/hr
 for vertical temperature gradient at Crossfield East
 greater than -0.5 degrees C/100m

MONTH	Frequency	Percent	Cumulative Frequency	Cumulative Percent
mar86	44	2.5	44	2.5
apr86	64	3.6	108	6.1
may86	69	3.9	177	10.0
jun86	70	4.0	247	14.0
jul86	113	6.4	360	20.4
aug86	183	10.4	543	30.8
sep86	168	9.5	711	40.4
oct86	110	6.2	821	46.6
nov86	61	3.5	882	50.1
dec86	42	2.4	924	52.4
jan87	53	3.0	977	55.4
feb87	99	5.6	1076	61.1
mar87	55	3.1	1131	64.2
apr87	70	4.0	1201	68.2
may87	52	3.0	1253	71.1
jun87	71	4.0	1324	75.1
jul87	126	7.2	1450	82.3
aug87	126	7.2	1576	89.4
sep87	120	6.8	1696	96.3
oct87	66	3.7	1762	100.0

Frequency Missing = 6367





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